DOCUMENT RESUME

ED 053 279 VT 010 924

TITLE	Evaluation of Graduate Physician Manpower Education.
INSTITUTION	Association for Hospital Medical Education, Washington, D.C.
SPONS AGENCY	Public Health Service (DHEW), Washington, D.C. Bureau of Health Manpower.
PUB DATE	5 Feb 69
NOTE	146p.; Edited transcript of Seminar (Chicago, Ill., February 5, 1969)
EDRS PRICE	EDRS Price MF-$0.65 HC-$6.58
DESCRIPTORS	*Evaluation Techniques, *Medical Education, *Physicians, *Program Effectiveness, *Seminars

ABSTRACT

A 2-day seminar, attended by 35 physicians and others concerned with graduate physician education, was held to review the state-of-the-art of evaluation, current techniques, and effectiveness of programs. Presentations during the opening session were: (1) "The State of the Art of Evaluation" by Ray Elling, (2) "Defining Objectives in Evaluation" by George E. Miller, (3) "Contemporary Activity in Program Evaluation" by John P. Hubbard, (4) "Judgement Evaluation" by Frank L. Husted, and (5) "Whose Evaluation?" by Edwin F. Rosinski. The second session was a round-table discussion of evaluation programs used by divisions of the Association for Medical Education and identification of commonalities in these programs. Some conclusions were: (1) There is need for more relation to society and also for more effective evaluation techniques, (2) Evaluation should be a continuum as is education, and (3) There is a need for more resources in evaluation. (SB)

127

ED053279

SEMINAR

"Evaluation of Graduate Physician Manpower Education"

(Edited Transcript)

ASSOCIATION FOR HOSPITAL MEDICAL EDUCATION

U.S. DEPARTMENT OF HEALTH, EDUCATION
& WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

Wednesday, February 5, 1969

PALMER HOUSE
CHICAGO

This publication and the seminar upon which it is based were performed pursuant to Contract No. PH 108-69-40 with the U. S. Public Health Service, Department of Health, Education and Welfare.

VT010924

ED053279

FORWARD

Periodic evaluation of activities offers an opportunity for recognition of the productive and nonproductive and for retention, improvement or discard of those activities. The traditional function of evaluation in education, particularly medical education, has been for individual accreditation. But evaluation of participating individuals in medical education can also serve to measure the process of education.

This conference on Evaluation of Graduate Physician Manpower Education was designed to provide a review of the state of the art of evaluation, current techniques, and the effectiveness of programs. The key to progress in graduate medical education is dynamic process with inherent flexibility for individuality that permits constructive change.

Jack H. Hall, M.D.
Conference Chairman

TABLE OF CONTENTS

Page

Wednesday Evening Session
February 5, 1969

Members in Attendance 1
Opening Comments by Chairman Hall. 5
Comments by Dr. Angelides 6
"The State of the Art of Evaluation" -
    Dr. Ray Elling 7
"Defining Objectives in Evaluation" -
    Dr. George E. Miller 13
"Contemporary Activity in Program Evaluation" -
    Dr. John P. Hubbard. 21
"Judgment Evaluation" -
    Dr. Frank L. Husted 26
"Whose Evaluation?" -
    Dr. Edwin F. Rosinski. 33
Closing Comments. 35
Adjournment 36

Thursday Session
February 6, 1969

American Board of Orthopaedic Surgery 37
    Discussion 40
American Association of Neurological Surgery. 45
    Discussion 48
American College of Physicians 51
    Discussion 53
Advisory Board of Medical Specialties 59
    Discussion 61
American Board of Surgery. 67
    Discussion 71
Association of American Medical Colleges. 72
    Discussion 76
American Academy of General Practice 83
    Discussion 85
Council on Medical Education of the AMA 89
    Discussion 91
Council of Professional Services, AHA. 98
    Discussion 101
Division of Regional Medical Programs, HEW 109
    Discussion 111
American Board of Obstetrics and Gynecology 113
    Discussion 115
Bureau of Health Professions, Education and Manpower Training 121
    Discussion 121
Recommendations and Summation 127

WEDNESDAY EVENING SESSION

FEBRUARY 5, 1969

The Seminar, "Evaluation of Graduate Physician Manpower Education," held by the Association Hospital Medical Education, Wednesday evening, February 5, 1969, Crystal Room, Palmer House, Chicago, Illinois, convened at 8:00 o'clock p.m., Dr. Jack H. Hall presiding.

- o -

. . . The following members were in attendance:

Angelo P. Angelides, M.D.
President, AHME
Coordinator, Division of Professional Activities
and Director of Medical Education
The Lankenau Hospital
Philadelphia, Pennsylvania

Thomas H. Brem, M.D.
President, Advisory Board for Medical Specialties
Los Angeles, California

Craig E. Booher, M.D.
Director of Medical Education
Blodgett Memorial Hospital
Grand Rapids, Michigan

Clement R. Brown, Jr., M.D.
Director of Medical Education
Chestnut Hill Hospital
Philadelphia, Pennsylvania

Hugh Butt, M.D.
American College of Physicians
Mayo Clinic
Rochester, Minnesota

Miss Cecelia Conrath
Acting Chief, Continuing Education Branch
Division of Regional Medical Programs
Department of Health, Education and Welfare
Washington, D.C.

David N. Danforth, M.D.
American Board of Obstetrics and Gynecology
Chicago, Illinois

Ruth Davis, Ph.D.
Director, Lister Hill National Center for Biomedical Communication
National Library of Medicine
Washington, D.C.

Ray Elling, Ph.D.
Department of Clinical Medicine and Health Care
University of Connecticut Health Center
Hartford, Connecticut

Frederick N. Elliott, M.D.
Secretary, Council on Professional Services
American Hospital Association
Chicago, Illinois

Robert L. Evans, M.D.
Director of Medical Education
York Hospital
York, Pennsylvania

John G. Freymann, M.D.
Director of Education
Hartford Hospital
Hartford, Connecticut

Charles F. Gregory, M.D.
President, American Board of Orthopaedic Surgery
Dallas, Texas

Jack H. Hall, M.D.
Vice-President, AHME
Director of Medical Education
Methodist Hospital
Indianapolis, Indiana

Frederick M. Hebert, M.D.
Director of Medical Education
Fresno General Hospital
Fresno, California

Rutledge W. Howard, M.D.
Associate Director
Department of Continuing Medical Education
American Medical Association
Chicago, Illinois

John P. Hubbard, M.D.
President and Director, National Board of Medical Examiners
Philadelphia, Pennsylvania

Frank L. Husted, Ed.D.
Associate Dean, School of Health Related Professions
State University of New York at Buffalo
Buffalo, New York

Alan Kaplan, M.D.
Bureau of Health Professions, Education and Manpower Training
Department of Health, Education and Welfare
Washington, D.C.

Robert B. King, M.D.
American Association of Neurological Surgery
Upstate Medical Center
Syracuse, New York

Mr. Theodore G. Kummer
Executive Director
Association for Hospital Medical Education
Arlington, Virginia

Max Michael, M.D.
Executive Director
Jacksonville Hospitals Educational Programs, Inc.
Jacksonville, Florida

*George E. Miller, M.D.
Director, Office of Research in Medical Education
Center for the Study of Medical Education
University of Illinois College of Medicine
Chicago, Illinois

*Due to unforeseen circumstances, Dr. Miller was unable to edit his comments in the following transcript.

Winston R. Miller, M.D.
Program Director
Northlands Regional Medical Program
St. Paul, Minnesota

George Mixter, Jr., M.D.
Assistant Director
Department of Graduate Medical Education
American Medical Association
Chicago, Illinois

Robert M. Moore, M.D.
Secretary, American Board of Surgery
Philadelphia, Pennsylvania

Aims C. McGuinness, M.D.
Associate Director, Educational Council for Foreign Medical Graduates
Philadelphia, Pennsylvania

Mr. Matthew McNulty, Jr.
Director, Council of Teaching Hospitals
Association of American Medical Colleges
Washington, D.C.

Woodbury Perkins, M.D.
Director of Medical Education
Mercy Hospital and Medical Center
San Diego, California

John D. Porterfield III, M.D.
Director, Joint Commission on Accreditation of Hospitals
Chicago, Illinois

Edwin F. Rosinski, Ed.D.
Professor and Head, Department of Health Education Research
University of Connecticut Health Center
Hartford, Connecticut

Norman Stearns, M.D.
Postgraduate Medical Institute
Boston, Massachusetts

Mr. Norman Tucker
Bureau of Health Professions, Education and
Manpower Training
Department of Health, Education and Welfare
Washington, D.C.

Carroll L. Witten, M.D., Past President
American Academy of General Practice
Louisville, Kentucky

Dr. Schumaker
National Board of Medical Examiners
Philadelphia, Pennsylvania

- o -

CHAIRMAN HALL: We want to maintain a considerable amount of informality here. I think that everybody knows who they are and I suspect most of us know who everybody else is. I think in maintaining the informality and the exchange we would like to have, I would like to have everyone say who they are and who they identify with, and we'll go around the table this way.

. . . Participants introduce themselves . . .

CHAIRMAN HALL: It is almost redundant to say that we have probably the busiest people in graduate medical education gathered here this evening, and we are deeply honored that you will spend your time with us, and we are sure that you will give a great deal to us, and I hope that this will be meaningful for each of us.

I think we have gathered together here the essential enzymes to work with the substrates that each of us relates to. I really look forward to a great deal of productivity in the next four or five years from this Conference on Evaluation of Graduate Medical Education.

In the present state of the art in graduate medical education, the merit of a program seems more related to the vocalness of the directors -- their ability to describe their program in glowing terms -- than to fact. We all too often have measured the end product of the educational process. We should have been measuring the education planning, or improvement in the individuals that we are trying to gain improvement in. If we are going to make progress in graduate education that the public will demand of us, we must have the dynamic process, with individuality built into it, that lets us change from year to year.

8

Before we can do this, we must have effective evaluation processes. Many of us in this room are engaged in evaluation procedures now. In the exchange of ideas that we gain over the next day and a half, each of us will be able to go home and do a more effective job. Tomorrow, in our last hour, I would like to ask each of you to bring forth the commonalities that we find that attribute to the success of the programs that will be discussed over the next day and a half.

I would like now to introduce Dr. Angelides, President of the Association for Hospital Medical Education.

Comments

DR. ANGELIDES: At the present time AHME represents about 500 hospitals which are involved in medical education -- undergraduate, graduate and continuing. Our emphasis in the past has been primarily in the graduate field. This translates to roughly half the graduate programs in the United States. This is ebbing somewhat and concern with continuing education is coming to the fore.

The questions often asked are : "How do I know what I am doing is correct? How do I know if I am doing a better job than other hospitals?" The purpose of the Conference is to bring together a representative group with an interest in some phase of medical education and an interest in evaluation of the programs for which each is responsible. We think this is an appropriate time to find out what you are doing so we can learn, and hopefully others will learn at the same time.

CHAIRMAN HALL: I want to set down some ground rules: one is informality; two, the identification of the individual. We are recording this because we hope to gain some guidelines, some general information, that can be made available to people interested in evaluation and the state of the art in graduate medical education. I hope that this does not stifle the free flow of discussion, that people do not feel they have to speak in a formal sense.

I would like to start now by asking Dr. Ray Elling, Professor of Sociology, Department of Clinical Medicine and Health Care, at the University of Connecticut Health Center, to discuss the topic, "The State of the Art of Evaluation."

"The State Of The Art Of Evaluation"

DR. RAY ELLING: I am a little overwhelmed by the size of the topic I have been assigned: "The State of the Art of Evaluation." Needless to say, in fifteen minutes and with my limitations, I am not going to cover it all. I hope to select some of the highpoints of the climate and the context of evaluation.

I want to ask the question, "Are we ready for serious evaluation?" Then I want to consider some of the conflicts in the values that are involved in the evaluative process itself. Then I would like to talk just a little bit about the structure or organization of the evaluative efforts.

In doing this I hope to save you from consideration of methodological niceties, consideration of scientific methods, and the latest techniques for evaluation. I don't want to ignore it entirely though and I would like to point you toward Dr. Miller's very fine article on the orthopedic training program in the October, 1968, issue of JAMA. It indicates several new approaches toward evaluation: first, the sampling of critical incidents, and second, the use of these materials in the development of a performance profile. This performance profile employs several different tests and approaches, and focuses on the recall of information; the ability to observe, analyze, and interpret data; the ability to solve clinical problems; the ability to communicate effectively with patients and with colleagues; and the ability to exhibit skills that are essential to the particular specialty, in this case, orthopaedics.

The first point with respect to climate, are we ready for serious evaluation? Let me quote from E. Suchman's book:

> "The need for evaluation rarely occurs in an atmosphere of complacency. Dissatisfaction, and puzzlement lie behind most demands for evaluation."

There isn't any place for evaluation effort in a situation in which people are satisfied with what they are doing. There would be too much resistance to careful and systematic evaluative effort. So one needs either to enter into or create a situation in which there is dissatisfaction with the way things are, and puzzlement as to how the gaps can be closed between ideals and realities.

Let me test how ready we are by asking a few questions that might suggest some new directions. I will be able to tell perhaps by the expressions on your faces whether I am getting into touchy territory, or whether this is something old hat.

First of all, should universities be the ones to structure and provide the curricula in graduate education? It seems to me that there is a climate developing, reflected by the Millis Report, reflected by the regional medical programs. In those programs one of the central problems we face is to connect the knowledge-developing and knowledge-transmitting center with the periphery of the health system--namely, the place of practice where it occurs, and wherever it occurs. It seems to me that the history of graduate education in the community hospital is an admirable one but one in which there is some possible isolation from the center of knowledge development and transmission, which is the University Health Center.

In any case, it strikes me that this is a question central and necessary to ask and evaluate: What about a program in which the connections are firm and the curriculum is established by the university, compared with a hospital, say, in York, Pennsylvania, in which setting the curriculum and carrying out the program is not structured that way?

Another possible new direction to be considered is related to my own field of interest -- the social sciences. I see the possibility of moving beyond the integration of basic science material in the treatment process to the integration of information from the social sciences. This strikes me as relevant in two ways.

First, I would think that the introduction of perspectives obtained through social-psychological studies, may be important for training in the judgment process itself. Not the content of clinical judgment and practice, but, rather, in the judgment process itself. Simply the awareness of the way in which men influence one another in the process of reaching a judgment strikes me as an important content area.

There is a range of ambiguity that applies to questions like: What does this patient have as his problem? What is the appropriate course of continuing tests and treatment? There is a range of ambiguity in which social influence comes to bear. I don't see too much of the knowledge available being introduced either at the graduate level or at any other level in medical education today.

In a second way it strikes me that material from the social sciences is relevant. And here what I am suggesting is with respect to the content of treatment itself. The following kinds of questions seem important to me: What about the patient as a social being? How does one treat this person adequately without understanding the process of socialization? What about the social, cultural environment of the patient, the place to which the person must return after treatment? If a person has a boil on his butt and he is sent home to soak his posterior in a bathtub and he doesn't have a bathtub, it seems to me that you have a problem, and I am not sure that the educational processes take account of this aspect of care and treatment.

What about the economics of care? The structure and operation of social power in the acceptance or rejection of new technologies and new forms of organized care? What about the epidemiology of the problems that the intern and resident see? What are the patterns of utilization of care? What about health manpower problems, and preventive aspects of care? To what extent does the content of graduate training include attention to these matters?

From Dr. George Miller's article there comes forth a fascinating question which will really test the vested interests in the field. Should we shorten training? Maybe one year is enough before one is a specialist. Looking at the graphs in that article, I see certain increments of knowledge between the first year and the second, and the second and the third, and the third and fourth in some cases, but is the increment worth it? In fact, in certain cases it seems to go the other way. The level of knowledge is higher in the first year than in subsequent years. Will, I'm simply saying, are we ready for serious evaluation? If we are, we are ready to undertake the study of those kinds of questions and others.

Another point I would like to make with respect to the climate of evaluation has to do with the goals of care. I am afraid I infringe here a bit on subsequent speakers, but I can't resist the temptation to suggest that there is a real convergence today between the goals of the educator and the goals of the person concerned with organizing care.

In closing, let me raise, finally, the question of conflicting values. The evaluative process represents an instrument of social power. It serves to re-combine, to re-define, to challenge, even to threaten, to open the way to some but not to others. What I am saying is that we need to consider the composition of the evaluating groups, and I would like to leave with you the questions: Should the evaluating group include some of the public in it? Should we go beyond our narrow, vested, professional boundaries and consider introducing an element of public accountability in the evaluative process? And, finally, should we also have in the evaluation process a kind of Man from Mars who may be like the cultural anthropologist visiting a primitive tribe, examining this whole phenomenon of evaluation and in a sense carrying out research on research, just to keep everyone honest in the process?

CHAIRMAN HALL: The floor is open for discussion. I will start out by raising this question: Evaluation, as you say, offers an instrument of change that can be helpful or can also be threatening, but doesn't it also offer the possibility of gaining change by evolution rather than revolution?

DR. ELLING: Yes. I think the process of evaluation, carried out carefully and systematically, with the grammar of science in mind, can be all important in introducing new approaches. It is like an engineering process in the basic sciences. It is a way of structuring behavior so it reflects the knowledge one has in hand, and, indeed, allows change without it being overwhelming and threatening.

QUESTION: You raised the question but you didn't provide a suggestion about the answer on the last issue. Should we involve the public in our evaluation processes?

As a sociologist, as a social scientist, what is your view? I think we would all be very interested in knowing.

DR. ELLING: I probably come to this question through some studies we have done of different professional groups in the public health field. Some twenty or so different groups were included in our study and, among other things, we asked them to rate each other on the extent to which they were professional. This included the physician, the social worker, the sanitarian, the public health nurse, hospital administrator, the statistician, and so on.

There were various ratings offered by each member of each group about other groups, and their own group. Some groups came out as highly professional; other groups came out as not so professional at all.

We thought we would look for the correlates of professionalism. Who is professional and who isn't? By this mode of analyzing the problem, we thought that things like service orientation, and autonomy in carrying out one's work, and things like this would be important. They didn't correlate at all. Instead, the things that really mattered were income, years of education, which could be a knowledge kind of factor but also might just be a union card, and sex. Groups more male in composition, were seen as more professional.

In thinking about this whole process of becoming professional, it strikes me that members of different groups attempt to establish themselves and provide a place for themselves under the sun, and in doing this, they often forget at least parts of their overall responsibilities to society. So I would tend to favor at least some experiments where public members were included in the evaluative process.

DR. GEORGE MILLER: You would reject then Flexner's early definition of the profession, of which the first criterion was that it determined for itself what was professional?

DR. ELLING: One of my mentors, Professor Hughes, sociologist at the University of Chicago, used to say that one definition of a profession is a group that reserves to define for itself its own mistakes. But it strikes me that with the rising demands for care and the definition of it as a basic human right, and the rising curve of medical costs and the increasing influence of large third party payers, that this business of guarding the jewels in the center of the temple and not exposing them to anyone has more or less seen its day.

DR. WINSTON MILLER: I guess the majority of us are in my era, about twenty years out of medical school. We didn't have the advantage of behavioral sciences when we were in medical school. We find now that we should let behavioral sciences control evaluation of what we do. We read the term "socio-economic medicine" lately. I know sociologists and I know economists but I didn't know either one of them got together to form a division of socio-economic medicine. We are talking about evaluation of educational programs in medicine, theoretically graduate and post-graduate.

What does this all mean, and how can the disciplines of socio-economic medicine assist medicine in these problems?

DR. ELLING: I think in a couple of ways, but I don't know that there is anything that unique other than a new point of view. I think that many social scientists would have a good bit to learn about the scientific method and its use in the clinical arena from physicians. But I suppose the one primary contribution would be in respect to perspective. And I simply mean by perspective the business of looking at people and their ways of behaving as a problem for study itself, just as the physician in the laboratory would look through a microscope at various clusterings of bacteria or other forms of other phenomena. Attention to that kind of study perhaps does develop another perspective.

DR. BUTT: Dr. Elling, I enjoyed very much your comments. Concerning your statement about guarding "the jewels of the physician," I think this may be not quite fair, because I don't think really they have guarded them as much as attorneys and ministers and maybe sociologists. But I wonder how the sociologists or others will be able to judge a physician for his competence. You admitted in your experience that it had no correlation, and I wonder if this is really possible, since we see sociologists and others sometimes pick the very worst physician. (Laughter)

DR. ELLING: I think we have to start spelling out what we mean by the dimensions of good care, and it seems to me that there are some helpful leads in the work of Osler Peterson, where he is examining the logic of the care process itself, and is essentially asking three questions about this process: What is done that shouldn't have been done according to best current standards and practice? What is not done that should have been done? And of the things that are done that should be done, how do they fit together? How do they relate one to another, sequentially?

I think quality care is very important, but I wonder if a sort of in-house examination of this process is entirely sufficient. For example, I would add some other dimensions to good care. I would ask the extent of which the care process leads to a degree of increased sophistication on the part of the recipient of care, with respect to health problems and what to do about them. It strikes me that if the system were functioning adequately, it would attempt in part to turn the job over to the recipient population.

I think one might also ask, does the system function to bring people into care in a timely manner? Do women come to the emergency room to deliver the child, or do they come in the first trimester for some kind of care? And to stretch our imagination perhaps beyond the limits we want to accept at all, does the health system function to do anything about the conditions of the environment, the pathogenic conditions of the environment and way of life of the potential recipient of care?

Those are different dimensions and are sometimes included in the usual examination and quality of care.

DR. BREM: I think we have to single out different levels of evaluation, and there are several. George Miller asked, "Should we really engage presumably knowledgeable, intelligent lay people to help us?" And Hugh Butt I think said they wouldn't be very helpful in telling us whether an internist is really competent to take care of patients and be certified by the American Board of Internal Medicine. I am not really sure that this is where the knowledgeable and intelligent lay person should be in evaluation. The Advisory Board of the American Specialties and the A. M. A. Council on Medical Education, and the A. A. M. C. are all involved in discussions on grants to medical education, in which knowledgeable, intelligent lay people would be involved and would determine or influence at least the broad objectives of medicine, medical education and medical practice. Perhaps this is the level at which they should be involved, and not really in the assessment of capabilities of individual medical care. Eventually, if programs develop to include the kinds of things that Dr. Elling is speaking of, then this kind of attention to sociological problems will evolve. But it is inconceivable to me the American Board of Internal Medicine should have on it as one of its examiners a sociologist. I would hope that eventually all of the examiners would be a little bit of a sociologist at least, and perhaps even have a little bit of the minister in him. As a matter of fact, we sort of look at this sort of thing in candidates, for their feeling and attention to the other problems of the patient.

DR. BOOHER: It seems to me that your lamentations have been largely in the direction of the sociological setting of the individual concerned. If it is true that this set is already determined before the individual is ever exposed to medical education, let alone post-graduate education, then someone must serve in the matter of selecting people who have the proper attitudes that you wish to bring out. As John Jay once said, "Since human beings are never likely to be what they ought to be, any scheme that requires something they cannot deliver, is abortive and nonsense."

DR. ELLING: I appreciate very much the remarks about level. I would only suggest that there might be a role for someone outside where the question of the broad disposition of the person in the care process is concerned. Not so much at the level, "Are the right techniques being employed and are the right tests being performed," but, rather, in the transfer from one treatment facility to another, "Did the information go with the patient? Were there any records that went along with the patient?" -- this kind of question, the way the person is handled generally.

CHAIRMAN HALL: On the subject, "Defining Objectives in Evaluation," we will hear from Dr. George Miller, who is Director of the Office of Research in Medical Education, Center for the Study of Medical Education, University of Illinois, College of Medicine.

"Defining Objectives In Evaluation"

DR. GEORGE E. MILLER: In his opening remarks, Jack said that he expected when we finished this day and a half meeting, we would go home and do a more effective job. He said this with some confidence. I must express somewhat less optimism about this in respect to the topic which I have been asked to address myself to, which is objectives.

We have been talking about objectives for a very long time; in fact, there is scarcely a conference on education in medicine that does not at some point have a sermon on objectives. Objectives almost seem to have become a kind of new religion among those who are educators in medicine, or at very least, an altar at which we worship. But like so many other altars at which we worship, this may occur only on Sundays. We can go about the rest of the week doing what we want to do, having done "our thesis" in this religion.

Really, if the discussion of objectives is to have any meaning, it is not in the sense of a sacrament, which is the outward and visible manifestation of an inward spiritual grace. It has to be that inward and spiritual grace which moves us to behave in a certain fashion all the time, and not just when we gather around a table like this. But the fact that the talk of objectives doesn't seem to have influenced our behavior as medical educators very profoundly up to now should not discourage us. Because more general educators have been struggling with the topic for at least fifty years.

So let me turn then to five of the basic characteristics, the criteria, against which the definition of objectives should be judged, and then try to determine the extent to which we use these criteria, or manifest them in the statement of our objectives for education programs.

The first, it seems to me, is that objectives ought to be stated in terms of behavior; behavior that the learner is supposed to exhibit, not the behavior that the teacher is supposed to go through. How is it that a learner is supposed to be different at the conslusion of a learning experience from what he was at the beginning of that experience? Because by some definition of learning, if behavior hasn't changed, then learning hasn't occurred. We've simply reinforced some of the things that we believe in, or found justification for behaving in the way we do.

So the first of the characteristics of objectives ought to be in terms of the learner's behavior, not in terms of the nature of the program, or the instructional experiences through which he shall pass.

The second is that the objectives ought to be understandable, understandable not just to the one who states them, but to his colleagues, as well as to his students. It is very interesting, if one attempts to find out from the members of a Department of Medicine how they interpret a statement of objectives that a student in the course of his experience in a clerkship in medicine should gain skills in dealing with patient problems. Stated in this way, it is so general, that it often has only idiosyncratic meaning, it has a different meaning to every person in the department. And each person then generalizes the assumption that everybody else means the same thing, and that the students understand this in the same way. But until a statement of objectives is understandable to all those who are to engage in the teaching and in the learning, then it means that they may be aiming for different targets, even though they are using the same term.

Thirdly, are the objectives real? By real, I mean, are we intending to do something about them? Dr. Elling has called our attention to the fact that some of the aspects of patient care, to which we pledge allegiance in our broad institutional goals, become sensitive to the needs of patients, for example, may not in fact be real in terms of trying to do something about the achievement of these objectives in the development of our program How often do we construct learning experiences that really are designed to provide students with the opportunity, not only to gain this skill of dealing in a sensitive manner with individual patients, but providing a setting in which there can be some observational analysis of whether or not they acquire this skill and feed-back to tell them whether they have learned the skill or not?

An objective, to be real, means that we permit ourselves to do something about it, and not just state it for purposes of the record. As most objectives now seem to be stated, it is as though we can take a deep sigh of relief when we've got them written down and put them in the drawer and forget them and go on doing what we have been doing. So they don't really meet this criterion of reality.

Fourthly, are our objectives achievable? Are they achievable in the time, with the resources and facilities and the personnel that are available? It is perfectly all right to say that in the course of a two week clerkship we want to help students gain sufficient knowledge of dermatology, to practice like a dermatologist, but it is not an achievable goal for most students under most circumstances. So that the time, the facilities and the resources that are available to us should in fact dictate to some extent the nature of the objectives as they are stated.

Finally, are the objectives measurable? Measurable may not mean the kind of rigorous measurement that we are accustomed to in physics or biochemistry. The state of the art of evaluation, of educational outcome, may be at the same stage that the measurement of the speed of light was 100 years ago, but we are beginning, and the question is to what extent do we make an attempt to measure those things that we say we are trying to achieve? Because unless we do in fact make some attempt to measure them, then we must depend upon our own individual opinion of whether or not these goals have been achieved.

Let us just look at the levels of education to which this group addresses its attention -- internship, residency, and continuing education, and see how many of these criteria of the statement of objectives are achieved.

In the internship, for example, I have yet to come upon an institution in which there is a clear statement of how the intern is to be different at the conclusion of the year from what he was at the beginning of the year, except the clear implication that he will be one year older. The objectives are scarcely understandable. Without some such statement, one can question the reality of what it is we are attempting to achieve in that year. A measurement of the educational objectives in the internship is rarely accomplished. It is obvious there are exceptions to these generalizations that I am uttering, but if one looks at totality, how often are these things done? In fact, the only definition of behavioral objectives of an internship that I am familiar with is the one that was established by the National Board of Medical Examiners as part of its study to revise Part III of that examination, a critical incidence study, that did define nine major behaviors and a number of sub-categories of behavior against which internship might be judged, but the frequency with which that is actually incorporated into program planning and evaluation at the individual institutional level seems to be remarkably rare.

If we look at a residency program, to what extent are objectives spelled out? In fact, in the requirements for residency training, as stated in the Journal of the American Medical Association description -- the internship and residency brochure -- almost the first requirement is that the trainee will go through a fixed and specified period of training, or specified set of learning experiences. None of this relates to his behavior or the rest of these elements of the objectives.

The American Board of Orthopedic Surgery has really made a substantial effort to go beyond this in the definition of objectives. Other Boards are also directing attention to this, but the time has certainly long since passed when we need to define much more clearly what it is we are attempting to do.

When we come to continuing education, I can only say that it is a morass, a swamp. Almost no one really seems to have a clear notion of the goals of a continuing education program in terms of the behavior of the learner, except that many of the programs indicate that the design calls for the achievement of making the learner better informed about something. So the real question then is whether they have become informed, or simply have been exposed to information.

I can only say that in the course of a systematic observational study which we have now underway, trying to look specifically at the way in which objectives are defined, programs are planned, evaluation is carried out in continuing education programs, in six different settings in a major regional medical program, one thus far can say we have yet to find a program in which objectives of the continuing education efforts have been defined. Programs are generally developed in an impressionistic fashion. They are mostly lectures, and the tools are used with mixed skills, despite the Council on Medical Education implications for twenty years of what constitutes a satisfactory continuing education program.

Let me close by turning back to the remark with which I started, that is, referring to Jack Hall's comment that we ought to leave here and do something. Talk is cheap. It seems to me that if we are in fact to improve our programs of graduate and continuing education, one of the places that we must begin is that of working diligently in the specification of objectives and not simply believing that if we create a program in which learners are exposed to teachers it will be a healthy and worthwhile experience.

CHAIRMAN HALL: George, in your description of behavior, isn't it necessary to go back to operational definitions, rather than traditional definitions? It seems to me that medicine has been kind of reluctant to accept these.

DR. MILLER: I am not sure that I understand what you mean in referring to operational definitions, Jack.

CHAIRMAN HALL: We give a description of behavior, or a description of what we want, and we say "by our decree then, this is the definition of what our objective is." It seems to me that we want to go back and say, "Hippocrates said that and it has gained support over the years, and thus it is the truth, and that is what we are trying to achieve." We are going to have to set up our own operational definitions in the behavior that we want to achieve.

DR. MILLER: Indeed, we must, because what we use, it seems to me, are very loose definitions. We say that we want to turn out a general practitioner but don't define what are the components of the competence of a general practitioner. How do you know one when you see one? What it is that he is able to do that people who do not have this competence are unable to do? I use this as an illustration but it might be applied equally well to any of the other specialties. It is equally to be applied to the continuing education programs for any kind of specialist.

DR. WINSTON MILLER: In regional medical programs, we are focusing on continuing medical education, and as we try to define the objectives we say, "Education for what?" Then we say, "Education for the role that the individual plays," and then we say, "What is the role?"

Now, the American College of Physicians gave a self-evaluation examination sometime ago. I took it. It was written for nine different specialties, by nine different groups of sub-specialists. It did teach one thing, I think, to almost everybody who took it, and that is, humility. It was absolutely impossible for any general internist to know all that information.

I wonder if you, or Dr. Elling, might comment about the extremely complex problem we face today in defining roles in order to be able to define objectives?

DR. GEORGE MILLER: I would comment by saying that we often try to start in areas of disagreement rather than in the areas of agreement, which seems to be a fruitless way to begin. There certainly are components of professional competence on which we would agree. We ought to be able to elicit information from a patient. This is a skill that can be defined in terms of its operational components. We can create educational programs specifically designed to help students gain such skills and can design assessment instruments. It is when we get to the broader things when we want people to become sensitive to the needs of others, that we may bog down. No two people can agree on what this manifestation of sensitivity is. But there are many areas on which we could achieve agreement and that would be a reasonable place to start, moving from there to the more complex, rather than being immobilized because we can't do the more complex things first.

DR. ELLING: I just might ask whether there is room for considering what some of the common behaviors are, that are applicable across the board, in terms of the different specialties. It strikes me that there is room for reconsideration of the now old-fashioned and outmoded notion of the united core of knowledge and information and skills that may be applicable across the board. Particularly in this area of attention of patient needs and problems and concerns.

DR. MICHAEL: Are we talking about two different areas? One, there seems to be some discussion in evaluating the content, what is presented. Number two, evaluation of the results. I think this is where Dr. Elling's earlier suggestion of the consumer or the disinterested person is being involved.

Let's take a very mundane example. A patient with pneumoconiosis pneumonia, you say the word penicillin and they get well, but the degree of satisfaction of the recipient of penicillin is what makes some difference. I am not sure this can be changed. I am not so sure the behavior of the guy who gave the penicillin and took care of the patient would change.

DR. GEORGE MILLER: I do. People learn their way through life. We are constantly learning new attitudes, as well as new information; in fact, a whole nation in 1933 learned a new set of attitudes that almost destroyed the world. There is no question in my mind that we continue to learn attitudes, but in our formal educational programs, in medicine at least, attitudes are learned by accident rather than plan. It seems to me the time has come for us to direct attention specifically to this attitudinal learning and create the settings in which those attitudes we want to encourage are in fact encouraged, supported and rewarded.

DR. BUTT: I would like to speak to something Dr. Elling said about a common denominator that we could look at. Even though we are subdivided into specialties, is there something that is common to all? In my experience one of the great weaknesses we see in people developing in medicine, internal medicine, is a lack of skill really in communicating with the patient -- history-taking is the old-fashioned term. This is always assumed to be something you pick up very easily but this is a most important skill.

In answer to the question that George Miller referred to, in order to know the person, in order to predict what is going to happen, find out what he is going to take home, and this really goes across pediatrics, surgery, everything else. I think this is a skill that could be taught. At the present time there is not any concerted effort to teach this. It is kind of obtained by osmosis, by listening to someone else.

DR. BREM: I question whether this sort of thing can be taught. I think Dr. George Miller touched on an important thing -- you can create an environment, an environment that consists principally of people, in the way of preceptors, and it is the way they manage themselves that determines what the students are going to do. Really, it is our environment in the medical schools over the years that has fallen short. But I think we are getting a little more insight. I think this is the only way that these attitudes can be developed.

DR. GEORGE MILLER: And I think you illustrate by this comment, Tom, one of the problems. When you think of teaching as something to do in courses, teaching is the total environment that we create in which students learn.

DR. ANGELIDES: How many medical schools have gone through and made a simple analysis of what the third year student needs? I would submit there isn't a medical school that has done it. There are really four things you can teach him that he needs to know for the rest of his career. They are so simple that it is almost trite to bring them up.

One is history taking. You have to teach the student to hold the patient's hand and listen to him. There are the techniques of physical examination. When you've accomplished this, you introduce differential diagnosis. How do you organize thought processes, interweave them, so you can come up with a diagnosis? Lastly, we must instill in the student the desire to ask himself, "If I come to this conclusion, how can I explain it?" or in our parlance, think patho-physiologically.

We do this every day and have tutorial instruction to do this.

DR. FREYMANN: I would like to ask about the total environment as the place where we learn.

I have seen one article that says that, written by a third year medical student in the New Physician. Has anyone else said that in medical journals? I'm sure the educational journals are full of it.

CHAIRMAN HALL: You might go ahead and say the rest of what he said in his article.

DR. FREYMANN: Your environment is what teaches you; it is not what your teachers teach you.

DR. DAVIS: As you probably know better than I, evaluation is a process in itself and really only became respectable after World War II. Initially, it was applied after systems, activities or processes were started and decisions had to be made as to whether to continue them. Evaluation applied to a process like education turned out not to be successful when considered as an afterthought. Evaluation is effective if applied as an integral part of the process, from the very beginning. And applying it as an integral part of the process means that it has to be done by people who are as competent as the individual who is framing the process itself.

Now, as nearly as history can show, evaluation has, in general, not been effective in changing the course of a system when the evaluation was started after that system was in being. Therefore, I was curious whether you thought that maybe some of us were a little too impatient in trying to evaluate a process, such as medical education, which has been so long without it.

DR. GEORGE MILLER: I would endorse your view that evaluation is part of a dynamic process. I would not endorse your view that we are too impatient. I think we aren't impatient enough, because if we were impatient enough, we would have gotten along with the business of incorporating it into the dynamic process of education, and it is time that we did.

CHAIRMAN HALL: Dr. Hubbard is here to address himself to "Contemporary Activity in Program Evaluation."

Dr. Hubbard is President and Director of the National Board of Medical Examiners and leader in that field for several years.

"Contemporary Activity In Program Evaluation"

DR. JOHN P. HUBBARD: You have asked me to speak about contemporary activity in program evaluation. This could be a very broad title. I am going to limit it, if I may, to the activities of the National Board, since this is something I know about.

The National Board became involved in program evaluation when we changed from the time-honored essay form of examination to the more reliable type of multiple choice testing. The historic role of the National Board, is to examine the individual in order that he may attain qualification for the practice of medicine. This went on in the early days of the National Board and still goes on, but when we changed to the multiple choice testing, medical schools became very much interested in our examinations for impartial examination of an entire class, usually the second year class, or the fourth year class.

It soon became apparent that when a whole class takes the same examination -- an extramural, objective, reliable examination -- the school obtains a good deal of information about the process of the educational system, as well as the product of the educational system. This still goes on extensively at the undergraduate level. But I think this evening we are more concerned with the graduate level, and I will confine my remarks to this area.

The study and revision of our Part III examination led to the current form of that examination. We have described it as "Objective

Measures of Clinical Competence." This is not meant to stand alone but to stand as the third part of our series of examinations, assuming that we have already tested, in Parts I and II, as comprehensively as we can, the knowledge of basic sciences and clinical sciences.

Our new methods -- that we have described as program testing -- coupled together with our more traditional multiple choice techniques, have brought and continue to bring in requests from specialty boards, specialty associations and from many directors of medical education in hospitals for help in the evaluation of their candidates and trainees.

The specialty boards with which we are now cooperating in the development of their certifying examination are the American Boards of Anesthesiology, Gastroenterology, Internal Medicine, Ophthalmology, Pediatrics, Plastic Surgery, Psychiatry and Neurology, Radiology and Surgery. In-training examinations for residents have been undertaken for the American Board of Neurological Surgery and the American College of Obstetrics and Gynecology. Self-assessment programs, similar to that of the American College of Physicians are now underway on a cooperative basis with the American Academy of Pediatrics, the American Psychiatric Association, and the American Society of Anesthesiologists.

The in-training examination for the Board of Neurological Surgery deserves special comment. Their concern was the high per cent of failures that occurred at the time of the certifying examination. After seven, eight, nine, or ten years of training, 45 per cent of their candidates failed the examination. What was the matter? It seemed very wasteful. Was the training program at fault? Were the candidates perhaps inadequately selected to begin with? Was the examination at fault? The Board of Neurological Surgery with our assistance set up an examination to be given as an in-training examination for residents with the firm understanding on the part of everybody -- the individual, the program director, the specialty board -- that the results of this examination would in no way be fed into the certification procedure. The grades would be reported only to the trainee and to his program director. In this way, both the trainee and his program director could take note of weaknesses and would have the opportunity during the remainder of his training program to remedy these weaknesses. This has been continuing now for some five years, and during this period of time it has become very apparent that the program is yielding considerable information about the training program itself, as well as the calibre of the individual.

In 1964 we published a paper entitled The Internship: An Evaluation of Input and Output. This brought a number of requests from hospitals for help with evaluation of their training programs. One of the first requests was from Dr. Jack Hall, who wanted our assistance in evaluating the internship at the Methodist Hospital in Indianapolis. We accepted his request and set up a pre-test and post-test evaluation of the internship year. At the same time, we undertook a similar pre-test, post-test evaluation for the military hospitals in the army, air force, and navy, at their request. It soon became apparent that there was limited value in this kind of evaluation for individual hospitals. The number of interns in any one hospital were too few, the training programs are too variable. We have therefore limited our participation in evaluating educational programs at the graduate level to those that have sponsorship of some kind on a national basis: a specialty board, a specialty organization, or an association in the field of graduate and continuing education.

At this point I would like to offer a suggestion. Perhaps this might be better called a challenge for the Association for Hospital Medical Education. I don't have to remind you that the heat is on with regard to the problem of the foreign medical graduates. I am sure that one of your very earnest concerns, the concerns of all directors of hospital education, is the competence of the foreign graduate, serving as intern or resident in our hospitals. There are reliable ways to measure this competence, at least certain aspects of it, if -- and I underline this word "if" -- if a well-defined program of evaluation were to be seriously undertaken on a national basis. What better answer to this question than a program undertaken by and designed by the Association for Hospital Medical Education? I have in mind the program that was undertaken in New Jersey. Maybe you are familiar with it. Under the New Jersey Hospital Association, with the leadership of Dr. Erwin Hirsch, a program was set up for evaluation of the int[illegible]nship programs in that state. There was a very obvious motive, and [illegible]t is, the very large percentage of foreign graduates in the New Jer[illegible] hospitals. This was a bold and forthright kind of undertaking. I leave you with this comment -- perhaps what was good for New Jersey might be good for the nation.

DR. NUNEMAKER: You may have been asked already about osteopaths. Last September somebody suggested a national evaluation. Have you had any experience up to now with any osteopaths?

DR. HUBBARD: Not directly. We have indirectly, since a number of states turn to us for help in the examinations, and we provided states with our Part I and Part II examinations, or whatever they may have asked for. Certain of these states have joint boards for M.D.'s and osteopaths. So there are osteopaths who take our examination under the auspices of the state examining board, but we don't have data from this. These states are very careful to give us identification by number only. Certain states that have combined boards are now using the new FLEX examination which is a step forward, in our opinion.

DR. NUNEMAKER: Several years ago we were very much interested in co-sponsoring this sort of thing, but ran into a budgetary problem. But we were interested spectators in the New Jersey experiment. The question I would ask now is, was that large enough a sample so that you would learn more nationally than you would learn from the New Jersey experience?

DR. HUBBARD: The New Jersey experience for the most part yielded information with regard to group comparisons, foreign graduates vs. U.S. graduates, years out of medical school, things of this sort.

It is a very important point to keep in mind -- if any such program should develop -- that there would be limited evaluation for a hospital that had two, three or four interns. If over a period of years a hospital turned up with very poor performance repetitively, there would be considerable meaning in this.

CHAIRMAN HALL: Dr. Hubbard, could you elaborate a little bit more on the study conducted in New Jersey?

DR. HUBBARD: This was a pre-test and post-test activity. The Part II examination had been taken by those who were U.S. graduates. We administered Part III at the beginning and again at the end of internship. Comparison could then be made between the pre-internship performance, and the post-internship performance.

DR. FREYMANN: I would like to know more about the critical incident procedure.

DR. HUBBARD: The critical incident procedure was developed about 1958 or 1959. We were concerned with the Part III examination. This was the traditional oral, bedside type of examination. As we became more familiar with the high degree of reliability we had in our Part I and Part II, we became uncomfortable with the lack of reliability in the oral procedure. There were too many variables. The patient that the candidate examined was one variable. The examiner was a variable. And another variable was the candidates we were trying to measure.

We undertook a grant supported study that proceeded over a couple of years. We sought the help of the American Institute of Research and its Director, Dr. Flannigan, who is the originator of the critical incident technique. The question was: What is the behavior of the intern that we, the National Board, are trying to measure in our Part III examination?

Those directly in charge of interns were asked to cite "critical incidents," that is to say what an intern had been observed to do that was particularly good or particularly bad. This gave us a broad spectrum of the abilities of the intern: his skill in taking a history and doing a physical examination; his judgment in ordering and interpreting diagnostic procedures and his judgment in therapy and management of patients. Then we got into some of the more difficult areas to measure, such as the physician's responsibility for his patient, his relationship with his peers, his relationship with hospital authorities. We accepted our limitations in measuring some of these latter categories of behavior and concentrated on those for which we felt that we could obtain reliable assessments.

We introduced the motion picture to standardize the patients that the candidates would see; we standardized the measurement of his judgment in taking care of patients through the introduction of the now familiar "erasure technique" for patient management problems.

MEMBER: Did most all the American graduates in New Jersey who took the pre-test after Part III pass the examination? If so, does this suggest maybe they didn't need the internship? Or weren't you measuring something that happened in the internship? If this is true, what is the implication?

DR. HUBBARD: Most of those who took the examination did pass. Only about two per cent of American graduates, after internship, fail on Part III. There were more of the foreign graduates that failed, and their mean performance was significantly less good.

We are continually studying the validation of these measurements. We have administered the Part III examination to students in the third year, the fourth year, the internship, and now we are getting into the residency area. There is a significant increase in the grades between the third year and the internship, so I think something is happening in the fourth year and internship that we are measuring with our Part III.

MEMBER: The problem we keep running into is the impact of a repeated test in the training program. The candidates being tested are being prepared and respond to the test in verbal combat and regurgitate perhaps inner information in response to the test, rather than maturing in a broader sense.

Can you comment on that in reference to your last statement?

DR. HUBBARD: I find it difficult to do so in a brief moment. We are providing an answer to students who want to know the answer to the question, "How am I doing?" This is criticized in some areas. I think there are obvious values that can be gained on the part of the student and faculty in accurate appraisal of both the product and the process of medical education.

CHAIRMAN HALL: Our next speaker is Frank Husted, who is going to address himself to the subject, "Judgment Evaluation." Dr. Husted is Associate Dean, School of Health Related Professions, State University of New York at Buffalo.

"Judgment Evaluation"

DR. FRANK L. HUSTED: The subject that Jack Hall gave me to talk about tonight is a rather difficult one and yet is one that I think deserves some very serious consideration. Also, it is probably tautological, but then I do think words have a way of impeding communications at times, even though it should not be the case. At other times, even misusing them serves a purpose.

Dr. Miller, in his usual efficient and effective manner has most admirably outlined the bogeyman of education, the teaching-learning objectives. Inherent in his comments is the element of definition. I would like to enlarge on that component by directing your attention to the role of definition in judgment evaluation. Dr. Hall's letter directed me to introduce and discuss techniques for evaluating judgment; to elaborate on the "state of the art," as it were, with the implicit objective of passing on to you a bag of ready-made tools or instruments with which such evaluation processes can be effected. Jack knows me well enough to appreciate that I do not always follow instructions to the letter. I hope that in positing a broader base, I can introduce a pragmatic foundation from which each of you can better assess techniques, or, even better, provide a baseline from which you can more effectively develop your own instruments in terms of your objectives -- your criteria -- to meet your special needs.

Benjamin Bloom, in his "Taxonomy of Educational Objectives"; Miller, in an article which appeared in the March 1964 issue of the Journal of Medical Education; Abrahamson, McGuire, Rosinski, Thomson, and others skilled in evaluation state explicitly or by inference that evaluation must begin with a clear definition of behavioral objectives. I would add to that for present emphasis that judgment evaluation must begin with clear definitions of what it is that one is evaluating. One cannot talk about judgment qua judgment; one must talk about judgment in respect to something. Clinical judgment? Still much too broad! For surely the ability to "judge" and by such "judgment" rate a heart murmur as Grade I, or II, or V is quite different from "judging" the condition of diseased tissue and from such "judgment" rendering a definitive diagnosis. And these are dramatically different from the judgment which follows each of them and which guides or determines patient management.

Can I compound the issue and confuse you further by suggesting that we are considering basic issues involved in judging a person's ability to judge -- to exercise good judgment? Let me submit that we are observing the behavior of a person or persons engaged in activity which requires a synthesis and effectuation of knowledge, and which requires skills, attitudes and understandings contained in behavioral objectives. These are, or should have been, explicit components of the teaching-learning experience through which the observed has recently passed or in which he is currently involved.

Let me add further, if you expect someone to hand you a ready-made "judgment micrometer" or a 9/16ths "judgment wrench" to measure or slip onto a 9/16ths "judgment laden nut" then I submit that your expectations will go unsatisfied. For in accepting such an instrument you have made an apriori judgment about its efficacy, avoided the definition process, and you will draw inferences from the results which may well lead you to throwing out the flowers with the weeds.

Let's move ahead, then, by going back. Back to the basic premise of definition. Whether you elect to use an instrument designed by experts or elect to construct your own, you can do so only by clearly defining the behavioral components and the criteria with which you will draw conclusions re: judgment. It is wrong, it is dangerous, and it is saying a risky nothing to say that "he displayed good judgment." That's only half the loaf and in this case it is not better than none.

Some define judgment as the process of forming an opinion. Okay, let's look at that for a moment. That is a behavioral activity, isn't it? But something is missing if we are going to use it in an operational scheme. Jack referred a few moments ago to operational objectives. We must ask the crucial follow-up question: "About what?" Having answered that, we are still in alien territory. We have to define the "what" in specific behavioral terms and then set values of "good" or "poor," "go" or "no-go" on the behavior or behavioral matrix. Even then we must validate our scheme by having other judges render decisions, or enter into the process of forming an opinion, and thereby arrive at some estimate of concordance. The crucial question then becomes judgment about what? Or, better, judgment in respect to what?

In the present context, I am not happy with the definition of judgment I just gave you. I want to push it into an action frame of reference and suggest that the judgment process of a health professional consists of a series of many judgment evaluations, each the product of instruments developed specifically for the behavior one wishes to assess. Having measured the knowledge and skills with the appropriate tools, observation -- with rating devices -- might well be developed. With these tools the elements identified in the definitions of behavior previously developed can be charted and coded.

Thus, in observing the behavior of an intern or resident as he examines, diagnoses, and sets up management processes for a cardiac patient, one can evaluate the judgment he displayed by referring to the total value of the discreet observations made in process, rather than making a sweeping statement relative to judgment. Having evaluated the student's judgment in this area, is it safe to assume that he will use equally good judgment in the examination, diagnosis, and treatment of a patient with a gastro-intestinal disease? No? This then requires different knowledge? Are there, then, both general and specific elements in judgment? If so, then both "general" and "specific" definitions and devices need to be developed, and, I might add, general and specific criteria. Do we not then need to carefully define the behavior for each situation, at least in broad categories? How, then, can we speak of judgment evaluation without being vitally if not anxiously concerned about definitions?

How many times have you said, "I am going to have to really think about it. It is a very important question." How many times have you said, "He displayed or used good or poor judgment in handling that patient." What did you mean? Did you examine at the time exactly what you were referring to when you made the statement about that intern or resident, or student? When you said that he used good judgment or bad judgment?

If asked, you would begin to describe the behavior of the student or the resident. You would cite critical incidents or give anecdotal evidence to support your judgment, but you would do this only when someone asked you specifically, "What do you mean?" I see a few lights going on. I have a sneaking suspicion that the behavioral indices are known, that the criteria are defined, the elements of a measuring instrument are lurking in the recesses of your mind. It just takes an incident to bring them out, someone to question you, someone to pick at you for a moment and ask you, "What do you mean, and about what do you mean it?" Judgment evaluation cannot be left to that kind of post facto functioning.

That this subject was placed on the agenda of this meeting is evidence of the fact that you accept this premise. Good! We agree on that. Now, then, let me suggest that a recounting by me or anyone else of available shelf-type instruments will, at best, be an exercise in futility, unless, unless you can say with confidence I have defined the behavioral components, I have established the criteria, I do have a series of incidences with which I can observe the behavior of the student as he goes through the process of forming an opinion. And if you've done all of that, you don't need Dr. Husted's "sure-fire snake oil" guaranteed to purge the academic system and render valid judgments of judgment.

May I summarize? Judgment evaluation, as any other evaluation system, rests squarely on the effectively developed, predetermined, rationally derived bases of:

The definition of objectives in behavioral terms.

The establishment of criteria. Standards of acceptance through critical incident and act-oriented indices.

The development and validation of the resulting scale, observation check list and/or behavioral tally sheets.

The implementation and continuous critical appraisal of each use to which it is put.

And these in turn are based on two basic assumptions:

1. There are general behavior patterns which are common to all situations requiring "judgment."

2. There are specific behavior patterns indigenous to the specialized body of knowledge upon which sound judgment is predicated.

DR. GREGORY: Dr. Husted, what would you do in this circumstance: You are examining someone with an immediate problem and you make a judgment about his judgment and conclude that it is a fine judgment. But some days or weeks later it ends in a total disaster.

And in relationship to that, what is the role of intuition, and is intuitive thinking permissible in any way at all? Has it any value, and is it in fact just a judgment process that no one can properly define?

DR. HUSTED: Let me suggest that if you have developed the behavioral indices, and if you have carefully defined what it is that you are looking for, asking for, and searching for in this judgmental process, then you will be less likely to make that kind of commitment about whether this person did or did not have good judgment. However, there is always in any measurement system what is known as a margin of error. I really don't care what system it is, there are margins of error. I don't think we will ever get instruments so fine that we will hit everything totally.

Concerning your second question, I would have a sneaking suspicion that in this area of educational evaluation, particularly in judgment areas or where our tools are relatively weak, that we will never be able to eliminate intuition, nor would we want to eliminate intuitive thought. Intuitive thought, when examined, may not be as intuitive as imagined. It is predicated on some pretty well established ideas that you have. It appears to be intuition simply because you haven't examined the basis on which this intuitive judgment is made, or the intuitive conclusion which is reached. I have a suspicion we just have to look at that which produced it.

DR. WINSTON MILLER: Is high level judgment teachable?

DR. HUSTED: I really don't think I have an answer to that question. Anything for which you can define behavior is amenable to a teaching-learning situation. I would rather that the question be asked, is it learnable? And is it learnable in the same sense that attitudes are learnable? Yes, I do think it is learnable, but I think there are many problems, if you are looking for a specific structure or a specific teaching-learning situation where you say, "I'm going to teach judgment." Like attitudes, it has to be something that is introduced in process.

DR. KING: Doesn't judgment have to be based in knowledge of what you are going to do, first of all? You can't teach judgment to an individual who doesn't know much about what he is going to judge.

DR. HUSTED: I submit the individual can't learn judgment about something about which he is not knowledgeable. We consider the behavioral objectives referred to by Dr. Miller include knowledge, and include attitude, and these are part and parcel of the educational package. I don't think you can teach clinical judgment, if you will, to an automobile mechanic, no matter how clever he is, unless he has some knowledge of medical content around which he is asked to make a judgment.

DR. KING: Judgment fundamentally is based on knowledge, isn't it? It is knowledge on which a man can make a judgment, something a non-knowledgeable man can't make a judgment on.

DR. HUSTED: I wouldn't want to get into the trap, that because he has the knowledge he is thereby able to make good judgment.

DR. ROSINSKI: I think the point was raised where one was predicated on the other, and I think it is a good point. If you are going to make a judgment about the use of two drugs, you are going to have to know something about the drugs.

DR. HUSTED: Yes, but the fact that you know something about them does not mean you are going to make good judgment.

DR. ROSINSKI: Of course not.

DR. HUSTED: I agree, the judgment is predicated on knowledge. but the presence of knowledge does not necessarily mean that good judgment will be effected.

DR. BREM: I was going to raise exactly that issue, that a man's judgment is no better than his knowledge and it can't be.

DR. KING: Isn't their clinical judgment equated with their decision-making capability, based on incomplete or indecisive information?

DR. HUSTED: All of which is evident on the basis of observations by the judges, and these observations have to be predicated on prior kinds of base lines.

DR. EVANS: There are general knowledges that you can teach about judgment decision-making which will then lead you to know the necessity for going and finding out about the two drugs, so that you can make the decision.

DR. HUBBARD: Can we use a simile here in our Part II and Part III examination? Part II is basically testing knowledge and the individual's ability to apply his knowledge to the problem with which he is confronted. Part III has an element of testing judgment. Now, we have seen individuals who display lack of judgment, as measured by our Part III. Having passed Part II, they have knowledge, but they can't altogether use the process of judgment in meeting the problem before them. But we would not see an individual pass Part III who had lack of knowledge to begin with.

DR. HUSTED: I would have some question as to whether or not Part III measured judgment. It probably does in some situations, but it is just a manufactured situation. It is far better that it be done by some more regulated observational approach.

DR. EVANS: Have you ever given Part III to anyone who failed Part II? Do you actually know who passed Part III without having passed Part II?

DR. HUBBARD: The answer to your first question, yes. We have an experiment in which Part III is given to medical students. I still will hold that in Part III, we are measuring something other than we have tested out in Part II.

DR. MICHAEL: I would like to direct a question to Dr. Gregory. It seems in your orthopaedic examination last year, and the year before, the last group of questions that had to do with clinical judgment, indeed, the scores worsened as the men progressed in their training. There was one group that worsened in their factual knowledge. Am I correct in that?

DR. GREGORY: If I understand you, there was an interesting event that occurred on a patient management problem, given to residents or given to applicants for certification, and examiners of twenty or twenty-five years' experience in the practice of orthopaedic surgery demonstrated what I was referring to earlier, a kind of intuitive sense about the case being described and often cut directly through to the diagnosis without traversing the traditional and proper pathways. That was a remarkable thing that I can't explain.

DR. McGUINNESS: They have a lot of stuff built into their computers that does it for them.

DR. GEORGE MILLER: If you stated it correctly, I'm not sure that the interpretations I hear around the table I would consent to. I think it is a question that requires further study with a larger sample. I am not at all sure that those who leap to conclusions necessarily render better patient care.

DR. MICHAEL: As far as the residents were concerned, year by year they were worse.

DR. GEORGE MILLER: The residents, year by year, showed no increment in the main score of their ability to manage these problems.

DR. MICHAEL: Yet in their recall of knowledge there was an increment.

DR. GREGORY: There was one other venture we had and it may have had something to do with that, and that is the impact of one individual on another in the matter of collective judgment about things. We attempted to build this into the oral examination for two or three years, and I think perhaps the reason we abandoned it was because our examiners had such a devilish time trying to make any assessments. But the impact that we observed was quite clear. There usually was one, or two persons -- and these were groups of six, I believe -- but one or two were far more vocal than the rest. They would tend to dominate the conversation and dominate also the conclusions that were drawn. Here is an aspect of judgment that I'm sure is part of every day life. You solicit another viewpoint to reaffirm your own and if it is sufficiently persuasive, it may change your mind.

CHAIRMAN HALL: The hour is late but I think we are addressing ourselves now to an extremely important part of evaluation, and that is, "Whose Evaluation?" Dr. Edwin Rosinski, Professor and Head of the Department of Health Education Research, University of Connecticut Health Center, will address himself to this problem.

"Whose Evaluation?"

DR. EDWIN F. ROSINSKI: A summary is going to be extremely difficult, considering the kind of group we have here today. It will be a summary in the sense that I will interject my own personal feelings about a number of the items and questions that were raised, and make some specific observations.

Dr. Elling really set the tone; which is, evaluation. He focused on the real problem, one we haven't really addressed ourselves to, and that is: defining the universe. In this case, the universe would be, to use Dr. Elling's definition, health care. He pointed out that we are not really sure of what it is we are talking about when we talk about the delivery of health care. If we haven't been able to really define that universe, then I question whether we can go ahead and evaluate individuals. Because we haven't been able to define that health care universe, as a consequence, we evaluate students in the same way we deliver medical service. It turns out to be episodic and crisis oriented.

Because the universe has not been defined and because our evaluation is episodic and crisis oriented, what we've done is focus on the outcomes of education. As soon as we focus on the outcomes of education, whatever little block of the educational component we select, we make inferences that the individual is now going to be able to do something differently than he did before. I really wonder if that is so bad?

For example, I would be relatively secure in knowing that a resident is learning how to do a lumbar puncture. If he is learning this, I feel fairly comfortable that he will be able to do it. I have to make these inferences and I think this is what we do a great deal of in the process of evaluation when we focus on educational outcome. We know we can evaluate his acquisition of knowledge about drugs, we infer and, hopefully, he is going to make use of this knowledge.

Many of us have had a tendency to criticize much of medical education because it is focusing on knowledge. I'm beginning to wonder if in the present state of the art of evaluation, whether perhaps we may have to remain content for the time being just with this measurement of knowledge?

I think that we will probably be provided with new and significant data from the work being done by the National Board. In terms of professional behavior of the individual, is there any difference in results from esoteric examinations and those that measure pure knowledge? Because our evaluation process focuses on knowledge I am not going to be too shocked and too concerned that we haven't become more sophisticated in our evaluative techniques. I am concerned that we may get to the point in the process of evaluation where we can become so detailed in our definition of goals and objectives, that we're going to end up creating, or having to create, some really esoteric evaluative techniques to find out whether this is being done.

We are going to end up like the congregation who got into a hassle over whether they should buy a $100 or $10,000 candelabra. The whole congregation was split over this issue, so they finally formed a committee to solve it. They couldn't solve it either, so they went to the president of the congregation and told him what the issue was -- that they were split on a $100 or a $10,000 candelabra. The president of this congregation said, "If we decide to buy the $10,000 candelabra, are we sure somebody can play it?"

This is what I'm a little bit worried about. When measurement techniques become too esoteric, the people, the rank and file medical educators, at the undergraduate and graduate level who are going to have to use these, may end up being completely bewildered by them.

In spite of my criticism we are going to have to move along the lines that Dr. Miller and Dr. Husted suggested. But, I think more than anything else, we are going to have to face up to our responsibilities. That really what we want to evaluate is the individual so he can go and face the real life as a practitioner. But to do that, Dr. Elling, I think we are going to have to go right back to the very things you raised. We are going to have to get at, ultimately, such issues as, what is medical care and what is health care? What is quality care? We are going to have to address ourselves to the issues of, who can best deliver that care. If we get answers to some of these, I think then we will be able to define better the individual who is going to be doing all of this. If we define him, then we can evaluate him.

We don't have the answers, I suspect. Yet, the ultimate responsibility is going to be yours.

The proof of the pudding is going to be, "How are you going to make use of the kinds of suggestions that are made here?" The whole process of evaluation is going to be your responsibility. You're going to have to define it. I would like to see us get to the stage where we can define our product in terms of behavior that is understandable, realistic, usable and measurable. As we do that, we can then evaluate with greater confidence.

DR. HUSTED: I would like to add one comment to what has just been said about the educators and tie it in with a comment made earlier. The pure educators, like Ed and myself, have come in the back door in medical education. We cannot, because of a lack of knowledge in medicine, do the impossible or do the job for you. We can't do it without the help, without the stimulation and without the input from you. We are in-house consultants, and the educator who knows nothing about medicine and who does the job of evaluating, I would suspect is an outhouse consultant.

DR. ANGELIDES: How does one define the Universe? I think we are currently evaluating no known objective or no known definition and any evaluation criteria we establish are on shifting sand and in some cases on quicksand.

I don't think we're ever going to be able to evaluate until somebody attempts to put down in clear, understandable terms, what it is we are striving to do. Once you establish that, you know what you are evaluating for. Right now we are just evaluating.

CHAIRMAN HALL: I think that we have our work cut out for us tomorrow. We have heard the challenge, those of us related to specialties and special areas of interest in education, related to health, defining our universes, setting up our criteria, and finding the most appropriate mechanisms to do these evaluations.

I am looking forward to an exciting day tomorrow.

. . . The meeting recessed at 10:20 o'clock p.m. . . .

ASSOCIATION FOR HOSPITAL MEDICAL EDUCATION

CONFERENCE ON
EVALUATION OF GRADUATE PHYSICIAN MANPOWER EDUCATION

THURSDAY, FEBRUARY 6, 1969
PRIVATE DINING ROOM 17
PALMER HOUSE
CHICAGO, ILLINOIS

The Association for Hospital Medical Education Conference on Evaluation of Graduate Physician Manpower Education reconvened on Thursday, February 6, 1969 at 9:00 o'clock A. M. in Private Dining Room 17 of the Palmer House, Chicago, Illinois, Dr. Jack H. Hall, presiding.

CHAIRMAN HALL: This morning we would like to explore the possibility of applying the things that we discussed last evening. We have had leadership in this from people like Charles Gregory and the American Board of Orthopaedic Surgery, and their experience over the past five years or more with their program is, I think, quite meaningful to us, and to our intent of improving the evaluation of graduate medicine.

DR. CHARLES F. GREGORY: First, I wish to say that I will not embark upon any technical discussion of the examination that we have developed in conjunction with Dr. Miller. The phalanx of experts would quickly strip away my veneer of expertise and leave me naked. So, I should rather tell you about what this has done, as we see it now, to our orthopaedic training program, and what it has made possible, we believe, in the way of additional development.

Some history is significant, I think, because in 1960, '61 and '62, the American Board of Orthopaedic Surgery was wrestling with a problem that is common to a good many boards: how to account for the large number of failures on board examinations from among candidates who are presumably produced by excellent training programs.

Now, it happened in 1962, in Highland Park near Chicago here, that the training chiefs for orthopaedic programs were assembled, and addressing them one afternoon was Dr. George Miller. The essence of his remarks was we didn't know what the hell we were doing. A perceptive member of the audience, Dr. Charles Herndon, who was then Chairman of the Examination Committee of the Board saw in this an opportunity, and he seized it.

The result of subsequent negotiations between Dr. Miller's office and the Board set in motion a grant application which was funded and permitted the study which began in 1964 and ended in 1968 with a remarkably altered format for examination. The features of that format are recorded in the JAMA of October, 1968. Still, in 1964, '65 and '66, we were faced with a large number of failures. It has not changed that aspect of it. The problem, of course, of the failing candidate for board examination is that it is discovered when it is too late. He is now out of training. It is not possible realistically to ask him to go back for additional training although we have tried it and now abandoned it. It is necessary to discover his shortcomings in the course of his training, or they cannot be corrected.

About the same time, 1961 and '62, Dr. Vernon Luck, who was then a member of the Board, suggested an in-training examination, and in 1963 one was implemented.

The objective of this examination paralleled those of the Neurological Surgical in-training examination.

Our first one was a clumsy effort along side the sophisticated instrument that neurosurgery and the National Boards contrived in their first one, but our purpose was the same. We wanted the examination to be anonymous. We wanted the reports to go only to the chief of the training program, and he to transmit them to the resident, and it was not to be available to the Board, and it was not to influence the eligibility of the candidate for Board certification, and it remains that way to the present time. The in-training examination is currently administered by the Academy, a non-certifying organization, and they sponsor it purely as an evaluation and teaching instrument in the course of the resident's educational period.

Now, some advantages, however, accrue to the Board. First, it is possible for a chief to judge the progress of his trainee from the first year through the fourth year. He can find those areas that are weak in individual candidates. He can identify areas that are weak in individual programs, and we can find areas generally in orthopaedics where the whole field seems to be weak, and having been identified, they can be corrected.

It was an excellent area in which to test the quality of multiple choice questions, for example. It is an opportunity to introduce new techniques in examination when they do not carry the responsibilities.

Additionally, candidates learn something about the techniques that they will face when their certification examination is taken, and I think that each of these has been fulfilled very admirably. I think it is significant that when our candidates in the 1969 examination were debriefed -- and by "debriefed," I mean after the candidate has taken the written portion of the examination, and gone through his two and one-half hours of oral examination -- each group is reassembled, and a member of the Board interviews them in terms of what they liked or did not like about that examination. They indicated that in their opinion one of the most valuable instruments that they encountered in the course of their training was the in-training examination.

Now, changing the format in examinations for a board is difficult. It requires the alteration of the attitudes that are sometimes seemingly set in concrete, and I think George Miller will attest to the numerous stormy sessions which his staff and our Board underwent, but I think from those stormy sessions there were sparks which illuminated. As a result, not only was a new examination developed, but there was a change in the attitude of those responsible for the examination. Evidence number one that attitudes can be changed.

Now, our Board examines in a peculiar way in that the Board itself is not the only cadre of examinants. We give our examinations once a year to large numbers, and we need additional examiners, and we call upon training chiefs around the country to serve in their capacity, and the success or the failure of our new format in large measure rested with these gentlemen. If they were sympathetic to it, it might work. If they were antagonistic to it, they could scuttle it at once. We did not leave this issue to chance, but, rather, assembled all of the examiners in a series of meetings in four or five cities throughout the country about a month before the new format was initiated. We went through its development, we explained the techniques, and we involved examiners in actual conduction of examinations in the new format. I think the single greatest accolade that I can pay to orthopaedics, and I wish to, is to these examiners who took it in the spirit in which it was offered even though many of them had very serious reservations about it, and they agreed to try hard to make it work. They did try hard, and it did work, and it became its own best salesman at that juncture. Evidence number two that attitudes can be changed.

Now, the real accomplishments, however, it seems to me, are the feedbacks of the training program which have been created. I firmly believe that when a critical examination such as the certifying examination is given, it will have rather profound influence on the pattern of the training of the individual who is going to take it. You may insist to your residents that the certifying examination really is only an incident in this whole business of postgraduate education, but they don't see it that way. To them, it is the most important. Having persuaded chiefs that examinations ought to be conducted along the lines of solving problems, this context of instruction filters back down the line, and, now, instead of teaching intuitively, instead of teaching simply masses of information, a good many chiefs now teach their residents in terms of problem solving. I know of no other way of having implemented this most important aspect than the mechanism of the examination.

Well, the upshot of these two changes are these. Now, we feel that in order to increase the output of orthopaedic manpower by reducing the time required to achieve acceptably competence by some, if not all, of orthopaedic residents, we have the instruments to do it. We believe that the objective has been defined, it is understandable, it is real, it is achievable, and our current in-training and certifying examination make the objective measurable.

DR. JOHN G. FREYMANN: Dr. Gregory, I think we are all very excited about what the Orthopaedic Board has done. As you were talking, it seemed to me that the next logical step is to extend this to quality of care, and I would just wonder if you have any plans along this line. It would be very interesting to correlate, if possible, the results, past grades, in these examinations with the quality of care ultimately delivered.

DR. GREGORY: I think it is an unanswerable issue at the moment, but I would say that one of the thoughts that occurred to Dr. Miller's group and ours is really to see what the net effect of all of this is on people ten years hence, and that a follow-up study along these lines is envisioned.

I am not certain that the instruments for the measurement at this time are as clearly defined as the desire to do so. I suspect that measuring the quality of the orthopaedic surgeon ten years later if it can be done, will be an indirect measurement of the quality of care the individual patient is receiving.

DR. FREYMANN: But you definitely have this plan.

DR. GREGORY: This is planned as an integral part of this study ten years hence.

DR. EDWIN F. ROSINSKI: You raised, I think, a fascinating phenomenon. People in education and measurement have always told formal test conductors that they create examinations and then people teach for the examination. You said that you have now created an examination that gets into problem solving, and the result has been that the teachers now focus on problem solving. Maybe this sounds heretical on my part, but, it is a damn good idea if you can get faculty in residency programs to work on problem solving so they can pose the problem solving exams. Why not, then, motivate them to do it by developing examinations like this that will force them into this kind of a teaching situation? It is interesting. It is a different approach, but it may be the only way you can get them off of midcenter. Then, maybe, we can get them to design objectives in terms of this approach.

DR. GREGORY: I don't know how to comment on that except that is the essence of what is happening whether by design or accident. If it was design, I would like to transfer the credit to Dr. Miller, but nonetheless, this phenomenon is evident. I see it particularly and in reference to a group in a private hospital that is a part of our affiliated system in Dallas. The Baylor Medical Center is a large private hospital, and the residents at Baylor are under the direction of physicians who haven't really any notion at all about how to go about the business of education. It was an osmotic process to a large extent, but it is amazing how quickly the chief of this program picked up many of the techniques he had learned as an examiner for the American Board of Orthopaedic Surgery. As a matter of fact, he is so gung ho that he has embodied in all of his evaluations the evaluation sheets that Dr. Miller devised for us for the business of grading candidates for the certifying examination. All of your residents are now evaluated semi-annually on the basis of their recall of information, problem solving capacity, interpretation of data, etc. Now, this clearly comes ringing through to the resident. Many people say to me, "How do we teach problem solving? How do you structure a course in it?"

My answer is, "All that you need for an exercise in problem solving is a resident with an X-ray in his hand and a question in his mind."

DR. CLEMENT R. BROWN, JR.: Do you have any continuing education programs in orthopaedic surgery for orthopaedic surgeons -- formal or informal? If so, in constructing the curriculum of these programs, do you do any surveys of practice of orthopaedic surgery in an attempt to gather some data to define needs for your orthopaedic surgeons for continuing education programs, and at the same time feed this back to the boards in terms of content for the board exams?

This might be a sensible thing to do. We survey practice in our hospital, and the kind of things that we find out that the orthopaedic surgeons are working in are the kinds of things that I doubt would be asked for in an exam of orthopaedic surgery.

DR. GREGORY: The issue in point is the in-training examination. We said at the outset that it was intended to discover weaknesses in candidates and programs. Those weaknesses come shining through when the examination results are tabulated because the examinations are segmented. There are certain numbers of questions in this category and that category, and you can find out where everybody is doing poorly. When we run across this area, we have a disproportionate number of questions along these lines the following year.

CHAIRMAN HALL: How have you used the in-training exam to feed back into your program and to moderate it?

DR. GREGORY: Although we have no claim on results so far as individual candidates are concerned, the chairmen of our two committees -- the in-training Examination Committee of our Academy, and the Examination Committee of our Board -- are ex-officio members of the opposite committee so that each knows exactly what is going on in the other. Each may bring back such information as we can use and do use.

Yet, on the other hand, we specify clearly in the stipulations what things the candidate will be examined in, and we are not free to unbalance that examination at the time when it is critical to them on certification. We think experimentation along these lines should be confined to the in-training examination, which has no responsibilities.

CHAIRMAN HALL: By the mechanism of these exams have you been able to define the universe better?

DR. GREGORY: I doubt we have defined it better. We have probably come a little bit closer to the technical aspects of orthopaedics which can be covered by an examination, but we haven't gotten any closer to the kinds of problem that Dr. Elling spoke to last night, and I don't think you can in the examination.

DR. MAX MICHAEL: I wonder if you would comment on that section.

DR. GREGORY: It is probably the most difficult of all to assess, and the certificate issued by the Board is not a certificate that attests only to the examination per se. We have other sources of information about candidates for certification -- his peers in his community, his training chief, the chief of the hospital in which he works. This material used to be gathered in a rather helter-skelter fashion, but it, too, now is, in a sense, programmed. We don't simply ask a chief or a peer to write a letter about Candidate X. We ask him to provide a certain specific information about Candidate X, particularly about his attitudes, how he gets along with people, how he communicates, how he deals with patients, community responsibility or sense of it. This is fed into the profile that will eventually determine whether he is a suitable candidate for certification or not.

We try to some extent to discover something about attitudes in the oral examination. We have on occasion had examinations with provocative questions. The questions weren't designed to discover whether or not he knew what a pitcher's elbow in a Little Leaguer was, so much as how he would deal with an irate or over-ambitious coach or father in a situation like this. Those have been intriguing experiments, but they have not always been easy to assess and to grade and to score, but this is one venture that has been made in that business of assessing attitude in examinations.

DR. DAVID N. DANFORTH: Dr. Gregory, has your Board addressed yourself to the problem of evaluating the quality of the work done by the men whom you certified ten or fifteen years ago?

DR. GREGORY: No, not really. We have spoken of this, but we haven't gotten around to it. I don't know that we will unless some instrument can be developed, and it could be the same instrument that would be useful in assessing the current crop of candidates ten years hence.

DR. GEORGE MIXTER: I understand you are giving feedback to your Review Committee. Would you enlarge on that?

DR. GREGORY: I can't tell you how much feedback goes to them other than the results of examinations as we have them at the present time. We feel at the present time that the feedback is totally unsatisfactory, and in a large measure sometimes rather perfunctory, that they are rediscovering the same things, that they are remeasuring the same things, and that the parameters that need attention are not receiving any attention, and we think part of this is inherent in the system, and it is unbeatable as it exists now.

We are going to make some proposals about changing the system rather radically.

DR. MIXTER: This is a very large problem, indeed, because the entire structure of accreditation is at stake here. The one problem that has not been appropriately explored is the critical mass of graduate medical education in a single institution and the corporate responsibility, we will say, of the orthopaedist and the general surgeon and the internist and the pediatrician and the O. B. -Gyn. as a group.

Now, every one of these relates to every one of the others, and I wonder in what way this particular aspect could be made a part of your kind of endeavor.

DR. GREGORY: Well, as you know, there is a tremendous increase in the amounts of solicitude on the part of various organizations for the welfare of residents and training programs right now. There are an awful lot of people who suddenly manifest great, deep, abiding interest, and there is quite a proliferation of proposed programs to correct all of the deficiencies that exist.

The core curriculum for surgery is emerging not on one side, but two sides simultaneously. What will come of this, I cannot say. I don't know how much of this may follow the tenets proposed by the Miller Report -- to permit the business of regulating the training programs to the universities. I can tell you that orthopaedics has the unique problem of having more identified affiliated programs in the green book than any other specialty that I know of. We have got about 165 of our programs utilizing university hospitals, children's hospitals and private hospitals. Keeping track of all of these is very difficult indeed.

Now, that means if universities take over the business of residency education and controlling it in all respects, that non-university hospitals are going to have to find a formal articulation with the university or be dropped off the screen. We can't make the sudden transition as easily as many others might because we must pay attention to these affiliated programs. They are in some respects a significant part of the backbone of orthopaedic training programs today.

DR. MIXTER: Of course, in Canada, they have already accomplished this. By 1972 in Canada, there will be no residency training programs which are not affiliated with some university or other. It is going to be a long process in this country, as you well know.

DR. GREGORY: Especially in view of the vying at the present time for authority. Is the accrediting body to be a university acting autonomously pretty much as they do so far as the MD degree is concerned, or is the authority going to rest with extramural organizations, now principally the AMA Council in conjunction with specialty boards?

DR. MIXTER: That is the theoretical problem. The big problem in my mind is that our universities are concentrated in a few cities. You have New York, you have Chicago, you have multiple universities in big cities, but how are you going to divide up the responsibility there is very difficult to assess. Furthermore, you have an awful lot of darned good training programs in cities that have nothing to do with a university.

DR. HUBBARD: Have you begun to accumulate, Dr. Gregory, data that permits correlation between the results of the in-training examination and the certifying examination?

DR. GREGORY: I don't know of any such formal data, Dr. Hubbard. We have only stabilized the certifying examination in 1968. We don't even have the results of the 1969 examination yet.

DR. WOODBURY PERKINS: I just wondered, Dr. Gregory, in the content of the in-training examinations, is it given exclusively by orthopaedists?

DR. GREGORY: Pretty largely. It takes about a year in its preparation. It is put together by a committee which is divided into several segments according to the categories of trauma and that sort of thing. But these are all orthopaedic surgeons who have some kind of an articulation with the training program, either clinical, faculty or research. Mr. Lee Natchez, an educational psychologist of the American Board of Orthopaedic Surgery, shapes the material the orthopaedists bring him into useful, reasonable questions.

CHAIRMAN HALL: Our next speaker is Dr. Robert King from Syracuse, New York. He is Chairman of the Department of Neurological Surgery at the Syracuse.

DR. ROBERT B. KING: Eight years ago for some unknown reason a good deal of turmoil broke loose among the neurosurgical world in this country with a good deal of concern for our practices and policies. The origins of this are not entirely clear.

Let me fix the base line at that point. The Neurosurgery Society had already sent official notice to NIH saying that we wanted no federal funds in support of our training program. That was just eight years ago, unreal today, but that is a matter of record. The Boards at that time, in the view of most, were still largely a closed organization. Members were rotating. They were coming from a limited source in the neuro-surgical community. Each of the national societies was entirely autonomous. There were something like eight -- each with its own membership, rules, inclusions and exclusions. No bridge of communication between them, each staking out its own areas of interest.

The public weal was a term entirely foreign to our conversation or considerations except for a very few leaders in the group. Education itself, as a process -- a responsibility of the neurosurgical community -- was largely neglected at the national meetings, and it rarely, if ever, appeared as a component of the program. That we should respond to change was almost unheard of, for we had most of the answers that were essential to our highest performance of a highest art.

Now, a number of adaptations have occurred in the last eight years. Let me indicate what some of these have been, at least, on the national level.

There are now eighteen training programs supported by NIH with training program grants. This represents a major turn. The federal tax dollar now supplies primarily the younger and growing programs, but not exclusively. The Board of Examiners is now broad-based, representative of all the national organizations and from those outside of the neurosurgical world. The Board rotates, and has a constant feed-in of new sources. The responsibility of delivering its oral examination has been a matter of deep concern to the Board. While we are nowhere near as far along as orthopaedics with respect to adaptations and examination technique, we, also, use adjunct examiners in order that they acquire training. Not so much in the present form of the Board, as a resource pool of personnel for the Board as the adaptations develop in the next few years.

The Board is concerned to introduce flexibility into a group of programs which are notorious for their rigidity. It is no easy matter. These national organizations that I mentioned all agreed unanimously four years ago to send representatives to the Board of Directors of one organization, formerly the Harvey Cushing Society, now the American Association of Neurological Surgeons, and to name that organization as spokesman for neurosurgery in the United States.

In many ways this means in the world, for half the neurosurgeons in the world are in this country. So all of the national organizations -- in all some fifteen national neurosurgical organizations -- now have a way of getting together on matters of common interest. Our major interest has been our training dilemmas and the evaluation on a broad scale of the world in which we are working.

An in-training examination was generated under the auspices of the then Harvey Cushing Society, and the Board of Neurological Surgery.

The purpose of that examination -- although it was generated from a concern for the high proportion of failures -- was to examine the training programs. The examination was set up to examine the training program directors and their programs, just as much as it was the trainees. It was also meant to feed the information back to the training program directors to jack them up where their training programs, obviously, needed additional help. I hope that we will have the wisdom to follow the path which orthopaedics have followed in maintaining this as an in-training program examination and not allow it to lose sight of its initial intent.

The program directors have had a workshop this year, for the first time in the history of neurosurgery in the United States. This is, again, under the auspices of the joint societies. Another is planned for next year.

At the same time that these national changes are under way, local adaptations of training programs are underway on many fronts and in many individual programs.

The requirements of our Boards are thirty months of neurosurgery, six months of basic science -- which is not defined -- and twelve months are opened for training in whatever vein the program director devises. This allows, then, eighteen months with a good deal of flexibility, and thirty months with little flexibility. Some programs include three years of basic science -- which means bench work in a laboratory -- plus four years of clinical neurosurgery -- seven years in all. They have had a hard time getting candidates down to six months of basic science and forty-two months of straight neurosurgery and out. The flexibility that is available even within what appears to be stringent limitations has depended in some measure on the imagination of the program directors.

In-service testing has been developed on many services. Program directors who are not utilizing this technique in internal preparation are concerned about this. They wonder whether in-service testing throws a bias into an actual examination confrontation by developing greater skill in the examinees in terms of style and rhetoric as opposed to information and judgment. I think, frankly, we don't have an evaluation system set up to consider that problem.

Evaluation itself generates new knowledge, new experience and a change of behavior on the part of the trainee and the tester, and this requires evaluation, and, so, we begin to cycle.

It is our concern, furthermore, to move further and to begin to evaluate that which we know little about -- not statistics on morbidity, not just the currency of practice techniques -- but the responsiveness of neurosurgery to the physical, mental, social, economic and spiritual well-being of the family units we are called upon to serve: and also, to consider our obligations to those who do not call. This is where the real difference is. It is here, perhaps, where we measure and evaluate the least.

DR. ANGELO P. ANGELIDES: How does one avoid the trap of perpetuating sacred cows? A group of individuals says, "This is what our boys should be trained for or educated in." Since they set the approach and the requirements, is there any way of avoiding this trap and accomplishing what Dr. King mentioned -- the relationship of training to the needs of the real world.

Now, it may be the same, but how does one tell?

DR. GREGORY: The only thing I can see is you need an iconoclast every now and then. So you look for one, and you try to wedge him in. Once he gets there, he is persuasive, he makes his presence known. As a matter of fact, the whole thing is iconoclastic, is it not?

DR. ANGELIDES: I am not trying to impugn anyone's methods. I am interested in the problem that each of these boards faces. Maybe, Dr. Miller and Ed Rosinski can offer some advice on how we could avoid the problem of involvement in special interest fields that may represent only a very small part of what they will do in the future. This is not to make them tradesmen, but to educate for the real world, rather than for someone's pet projects. Is there any device that can be used? I am not being critical. I am asking.

DR. KING: I wish I had an answer. We try to confront it locally.

CHAIRMAN HALL: Do we have any measurements of what is the demand of the real world? I had the opportunity of sitting with the President's Commission on Health Manpower. We knew all of the ratio findings information, but we really didn't know what those people went five times a year to the doctor about, and to design a system without knowing the demands is very, very difficult.

DR. KING: It is more difficult if you don't know what they didn't go to the doctor about.

DR. HUGH BUTT: In answer to Angie's question, I think something we found very helpful is to include in any testing, evaluating group some people who are really out on the firing line. These people bring you up short with things that are real and relative, and I think you need them for a control. Just to take a group of us who are in academic life and let us set all of the standards, I think, is wrong. I think you have to have the experience of other people.

DR. MIXTER: We are dealing really with two problems. One is the problem that confronts the Boards universally and immediately -- the evaluation of the people who present themselves for certification.

Secondarily, we are dealing with the problem of the accreditation of programs which are supposed to produce the people who can pass these examinations.

They are quite different problems, actually, because the boards are dealing with techniques by which they can evaluate the products of these programs. The review committees are dealing with the techniques by which these people can be produced. It is obvious that there are imperfections in both methods of evaluation.

I think there has been on the whole very little feedback between the two groups. They function quite separately, and that is unfortunate. However, every one of the boards is represented on every one of the review committees, which is as it should be.

In addition, all of the review committees have representation from the Council on Medical Education. The Council, in principle, attempts to keep a balance -- and I speak now to the problem of those who are on the firing line -- attempts to keep a balance by introducing to the review committees persons whose orientations are, perhaps, somewhat different from the board representation, and where a college or academy is concerned, different from those people, too.

As a matter of fact, if a council representative on a review committee is appointed to a board, he is automatically relieved of his duties as a council representative. I don't know how many of you know that. So that the council, then, because of its participation in all of these activities, has an obligation to be an agency which is responsive to the needs of the people and not the needs of the educational systems and not the sacred cows and not the establishment. Whether or not the council by its appointments is able to do this is open to question. However, the mechanism is there.

I think the Council should be made aware by those who are interested of its obligation in this regard. If there is no feedback to the Council, they won't know who they are supposed to appoint, you know. So, here again, there is an obligation on the part of the profession, generally, to keep the Council on Medical Education apprised of the needs of the medical community.

DR. BROWN: I would like to suggest that the boards are probably one step away from the real problem, examining the product of the educational programs. And the Residency Review Committees are probably two steps away from the real problem in looking at the teachers. Until we really get at what happens to patients who are managed by all of the products of all of these programs, we won't have gotten at what we are really after.

This is easy to say and difficult to do, but I think this can be done, and I think when you begin to do it as it is being done some places, you can see how irrelevant some of the training and some of the exams are to what happens in the real world in the practice of medicine. It makes you very concerned -- it does me -- that there are not people on the Board of Orthopaedic Surgery to assist in the construction of the exam who are not orthopaedic surgeons. Orthopaedic surgeons do a lot in management of patients -- at least, they do in my hospital -- that they could do an awful lot better. And those things don't have directly to do with the study of orthopaedics, but have to do very much with the management of their patients for whom they are entirely responsible while the patient is in the hospital.

So, I think we should really begin to look at the patient care process and feed that back into your Board exams and your training program. I think you are one or two steps away from the real problem.

DR. HUBBARD: There are now two specialty areas that have this in-training evaluation. Others are contemplating it. Is it likely that by virtue of the introduction of these in-training evaluations, there may be reasons for a new look at the requirements set up by the boards of certification? I think some of us have the feeling that these time requirements were first established by boards to a certain extent because of lack of confidence in the evaluation procedure, lack of confidence in the examinations. Now, there is reason for more confidence in the evaluation and the examinations, and if an individual shows up as superior by virtue of his evaluations during his training period, is there still the same justification for holding him to a predetermined period of -- I think you said seven years, Dr. King -- or whatever the time interval may be?

DR. KING: Our boards are now prepared to consider a recommendation by a program director that a man may have accomplished his basic science and his basic experience in the neurosciences even during medical school and can be relieved of an obligation to repeat that period of time in his post-doctoral period. The basic science requirement may be fulfilled during medical school because of changes in the school curriculum. This also becomes another argument for turning major responsibility for these programs to universities. They can pull the time base out from underneath the post-doctoral period.

CHAIRMAN HALL. I might also say parenthetically this forces the program director to be self-penalizing because you are getting rid of the man you would like to have around most, who provides the leadership and the things that make life much more pleasant.

DR. GREGORY: Well, the next step in the American Board of Orthopaedic Surgery is precisely in this spot, but not left only to chance. There will be careful assessment of the nature of the program that produces people who may be eligible for certification at a shorter time than the conventional period. It is this element that we would like to extract and reintroduce into other programs if it is possible to do it.

CHAIRMAN HALL: Our next speaker is Dr. Hugh Butt, and Hugh has led in many things. One of the things he has led is a self-re-examination program that was referred to yesterday. I think that we are indebted to Dr. Butt's enthusiasm in the development of this important tool.

DR. BUTT: The College of Physicians has been at this education game for many years, and, in fact, in the Charter of 1916, continuing education is mentioned as its prime purpose.

Now, it has done the usual things that any large society -- about fourteen, fifteen thousand members -- has done. It has its annual meetings, and it has its regional meetings, and it has postgraduate courses -- which it was one of the first to start in this country -- and this seemed all right for a while, but its Educational Committee started looking into this and talking to members, and members were very frustrated because they felt a lot of biomedical knowledge was passing them by, that they were not applying this new knowledge to practice. In talking to literally hundreds of these people throughout the country, we found that this is essentially what they wanted, something to close this gap, if possible.

Well, the Committee looked around to see what was going on in continuing education, and we found a primordial ooze. This was exactly where we put our feet, and we are not out of this ooze, but we are trying to make a little progress.

We found that the things that all of you know were going on -- the television, the tape, the sound tapes. Postgraduate courses by universities rarely begin at the convenience of a practicing physician. Often when he got there, there were poor speakers, poor slides, poor content, a great waste of time. In talking to these men, though, the thing that they really didn't know, was just what they didn't know. This gave us the idea that, maybe, some sort of "self-evaluation" was needed. We began with some major premises.

The first one -- physicians want to learn and increase in excellence. They would like to know their deficiencies -- providing no one else knew them. All of us have some paranoid trends and need careful reassurance.

This last sentence usually brings forth a lot of smiles, but in talking to several nationally respected psychologists and psychiatrists, we found this is true of all people -- whether it be state bar exams, national boards or whatnot, in which other bodies have to certify them and which may affect their income and practice. We were advised that because this was the first time, on a national level, that doctors were being offered an opportunity to assess themselves, that we not try to gather information. As a matter of fact, the psychiatrists felt that the exam or the self-evaluation, as we prepared it, would cause quite a bit of depression anyway.

Our idea was rather simple -- the member would volunteer to be appraised. It would be taken at his convenience -- with or without help. The answers would be sent to a bonded firm. That means that Hugh Butt wouldn't know, or the College of Physicians wouldn't know, or NIH wouldn't know. The bonded firm is a group of certified public accountants, and the name and scores of the testees were erased after they had been graded by computer, and the results were returned by confidential mail.

When this is discussed someone always says, "Well, gosh, it is kind of a waste of money and effort to go to all of this trouble. You are not getting any data for the college or for the educators." This is true but we were advised very strongly not to.

The real purpose of this first baby step was to get the confidence of the members of our organization and other physicians in the country and assure them that the College was sincerely trying to help them.

We arbitrarily divided internal medicine into about nine areas, and you can guess what they were. We selected outstanding committee chairmen of each of these areas, elected five people, one of whom had to be someone in general practice of internal medicine, and the chairmen were told to include in these questions scientific knowledge that has developed in the past decade that could be directly applied to the patient. This wasn't to be a recall of information and data bank, but simply to how could you apply this material that had been collected. It was available, and did you know that it could be applied to a given patient situation, and they developed about seven hundred questions with illustrations, some in color. A nominal cost of ten dollars was made to the members. We estimated of our thirteen, fourteen thousand members at that time, that there might be five or six thousand who we would consider were eligible. This excluded pediatricians, psychiatrists, scientists in the club and also, maybe, men past sixty-five, although to my surprise many men past sixty-five took the test.

Well, much to our surprise in the first two weeks four thousand people signed up, and thirty-five hundred people returned it on time.

Now, since then, this has been made available to non-members, and over ten thousand of them have been purchased, and they are being used in many ways -- as a teaching aid in both medical schools and universities hospitals.

I can only say that we are quite convinced that this is one simple, important method of continuing education. It is by no means the whole answer. It is just one tiny part, as we all realize.

I am quite convinced, as others, that physicians want to learn, they will work to learn if you can do it with dignity and with reassurance that it will be private and voluntary.

DR. THOMAS H. BREM: Hugh, I talked to quite a number of people who have taken this examination, and every one of them has said that he has felt rather frustrated and unhappy because he really didn't know where he stood in the scheme of things after he got his results back. Now, most of them, in fact all of them, that have talked to me about the examination have said they wished they had sent a curve back so they would know approximately how well they did relative to the other thirty-four hundred.

DR. BUTT: Let me comment on that, Tom. We were advised that this would be a complete failure if we sent out a prospectus and asked the people to fill out a lot of data about themselves, whether you have had your Boards or not and so forth. It would be the kiss of death just as much as if we had written down, "This is supported by NIH."

Now, we have received hundreds and hundreds of letters, mostly complimentary. This is not mentioned very often, but in going around the country and talking with people, I find, too, that deep inside, this is what they would like to know. So, now we are meeting to start to prepare another one to begin in 1970 or '71. I think now we can make this step and get this data and get curves and get information back.

One of the things that also deterred us at first -- the press was very interested in this when it was first announced to them. They thought it was wonderful that a group of physicians were going to try to evaluate themselves, but as soon as they found there would be no grades available they lost interest. In fact, only one newspaper reported this as something that was good that the doctors were doing. Since then I have talked to some good newspapermen, and they tell me that no newspapermen would be interested in this unless they can get bad news out of it. I think they are right. George Miller has, I think, some good ideas about how we might present this as a research project and just publish it in the literature without announcing it. It is not anything new now, so I don't think the press is going to be interested anyway. Just publish it in the Journal of Medical Education or the Annals, and let the curve be, and let them interpret them any way they want.

DR. AIMS C. McGUINNESS: The curves wouldn't be worth very much anyway if we didn't know who got what kind of help and so forth.

DR. BUTT: This is another thing Dr. Hubbard has pointed out. If you really want true hard core data, it has to be monitored with time and content. The only other way I know we can do it is give part of it at the Annual Meeting. You could give it to people in an audience. Give them the exam for two hours and monitor it and feed it into a computer.

DR. HUBBARD: You might be interested to know we have had discussions with the American Psychiatric Association on very similar lines, and they have gone down precisely the same path. They have not been willing to face up to the idea of a scored examination at the first step. The pediatricians are also doing it. It is the "in" thing. I don't think I am apprehensive of the press. I think this depends entirely upon how it is presented.

We distributed a frequency distribution for the neurological surgery group. An individual knows where he stands on the curve, but this is something very different from letting the press know that "X" per cent of the physicians of the country don't know a certain amount.

The press can't do very much with where an individual may stand in a frequency distribution.

DR. ROSINSKI: I think it is a question of what kind of data and how it is going to be used. Aims' point was a good one. He was saying it was a natural instinct of an individual to want to know how he did in relation to somebody else. You are still motivated to take examinations, and they are competitive in spite of what you do in them. It is just natural in you. You know how well you did on the exam yourself, but it is natural to wonder how other people did. These kinds of data could be provided.

DR. McGUINNESS: How well should he have done?

DR. ROSINSKI: That is carrying it one step further.

DR. BUTT: I might say one of the important things in this self-assessment, we tried to get away from the word "exam." We send out references with each question, and many of the men have found this very useful. Over a period of time, six months or a year, they could look up things that they missed. We have had suggestions that this is really not the answer either, that we should send out abstracts of these references, and I think this is quite important. It is very difficult for many physicians in small communities to get to a big enough medical library to find these references, and if we are really going to help them learn, help them close their information and knowledge gap, then, I think we ought to make it something easy for them.

DR. GREGORY: Aren't we skirting a little bit the question of a passing grade, which brings to mind at once the specter of recertification? How much of this really has its motivation in producing some implements that extraneous bodies may find acceptable for recertification? Are you thinking along those lines, really?

DR. BUTT: Well, we have been accused of opening up a Pandora's box in this line, but as you well know, recertification has been talked about for twenty years. I suspect it is going to come in some form, and I would hope if it does, that it is controlled by people like there are in this room, rather than men from some government organization where there wouldn't be any flexibility.

This human feeling of wanting to know how you stand is a natural one. I don't think you can do away with this. I think it is good.

DR. ROSINSKI: I agree. I think it is.

DR. NORMAN STEARNS: I think it is interesting to note that the Academy of General Practice came to the Postgraduate Medical Institute in Boston a couple of years ago and asked if we would produce for them a self-assessment examination similar to the lines of Carl's physician examination. The motivation for this examination may have been varied. Initially, some people thought they just wanted to prepare for an examination in family practice, but it was made eminently clear to them that this was not the thing to do, and it was not really possible to do, that a self-assessment examination might even be bad.

Nevertheless, two academies, Ohio and Connecticut, said they had a higher purpose in mind. They wanted to provide an educational tool. The idea wasn't to find out where you stood, really, but to help to teach by means of the examination.

So, we devised an examination for them in which the answer to each question provided a piece of information, and in the answers we provided not just a reference, but a notation, so that there was a reason why the answer was correct.

The information from this examination has not been discarded. The Academy does not intend to give out individual information, but one objective, certainly, is to identify those areas of need for more education. In the areas of weakness, programs will be developed to guide in the fulfillment of a higher educational goal in the specific areas where demonstrated need has been evidenced. I think it is interesting that there may be different kinds of approaches to the concept of the examination itself. It is also interesting that they couldn't get this examination done for them in other places.

I might have an opportunity speaking to your question about the library, of big reference sources, there will be an article coming out in the February 27th New England Journal this month on a core library for practitioners which we have compiled. Most necessary information will be in this core library which is absolutely feasible for every community hospital, the journals and texts costing less than two thousand dollars.

DR. BUTT: I would like to ask a question of this body. I don't know whether George Miller or John Hubbard or both might comment. I would like to know if this is the first step in the swamp, where do we go from here in really evaluating? Here we have a large number of people out seeing patients and then, obviously, want to be evaluated and know where their deficiencies are.

What is the next step in evaluating this so we can help them more? What do we do? Let's get it off the blackboard.

DR. HUBBARD: I think we need to keep rather clearly in mind the difference between the objective of continuing medical education and the objective of assessment. The College of Physicians and these other groups have expressed the desire to get real data from their membership as to where their weakness is to guide their postgraduate training programs. If you want this kind of information, I think it has to be an examination and an examination under supervised conditions that will give you reliable data. This, I think, is something very different from the kind of self-assessment activity that is really aimed at the objective of education.

DR. GEORGE E. MILLER: What this provides is to help someone identify a need to know. Until he has this, it is unlikely that he is going to embark upon a learning program, but learning is individual. It seems to me unlikely that a national organization is going to be able to provide an educational program for thirty-five hundred individuals. It may provide resources. It may provide references and material, but the learning ultimately is going to take place at the individual level. It is for this reason, it would seem to me, that this organization -- the Association for Hospital Medical Education -- is one that must direct its attention to this question at the local level where the opportunity to work with individuals is greater than through a national organization, but utilizing data that may be provided by a national organization that has an opportunity for a far larger sample than would be possible at the local level.

At the same time, however, the problems in each institution or with each practitioner are to some extent unique, and, so, the sort of thing that several members of this Association -- I note particularly Clem Brown and Bob Evans trying to gather local data about physician performance as a self-assessment method -- should be incorporated with the broader accumulation of information, the identification of need, the specification of objectives for an educational program and appointment of reference against which they can make some assessment of the extent to which those objectives are achieved.

DR. McGUINNESS: Each physician probably has a relatively small need of information for the majority of his cases . . .

DR. BUTT: I don't agree.

DR. McGUINNESS: Some of it you store in fragmentary manner in your computer. You don't need to be necessarily able to recall that indefinitely. You need to remember that the information is there and where you can go if you have to go and look it up.

DR. BUTT: I suspect you are not being fair to yourself. I think your computer is using all of these things every day. Every patient you see you have to in some way eliminate numerous things.

DR. McGUINNESS: There are certain things, but there are a great many details on one of these examinations that you do not have to carry around with you.

DR. BUTT: Well, I see what you mean.

DR. McGUINNESS: That you would have to carry around if you were going to get a reasonably good score on that examination.

DR. BUTT: This assessment was not for recall of dosages of drugs and things of that sort. This had to do with the application of modern knowledge to the practice of internal medicine. After all, we all have data banks and computers to keep all of those little things. Ours is just not big enough.

DR. FRANK L. HUSTED: It would seem to me that Dr. Butt's objectives of a particular effort may well modify or determine or predetermine the way in which data are handled, and the way reports are made, and the way specific examinations and devices are developed.

I would point out specifically the objectives in the total process, one of which was immediate: you wanted to gain the confidence of your colleagues so they would respond with some degree of veracity and in sufficient numbers as to make your study valid. This is an impeding objective. When this has been achieved, you can reduce this component, and thereby introduce other kinds of issues into your examination process which heretofore were not possible, and, therefore, taking the next baby step. I would caution against taking a giant step at that point simply because you have this gain. Don't be overconfident by the gain scored, the gain realized, but take another baby step by adding another dimension.

DR. BUTT: Very good, I agree.

DR. WINSTON R. MILLER: We are seeing the emergence now in this Association of Directors of Medical Education throughout the country of an expanding interest in directing continuing education at the community level, and we ought to exploit this possibility and have some plans for doing so. To what extent could the next step of the American College of Physicians' self-assessment program provide a very much needed nucleus or multiple nuclei of topics that could then be distributed to Directors of Continuing Education in community hospitals as a definition of need for postgraduate education?

One of the principal problems that always comes with every DME when he talks to his medical staff is what do you need to know, and there is a lot of argument about this. So, any facts we have to present greatly facilitates local efforts.

DR. BUTT: The AMA, you remember, started out looking into continuing education, and they came to some conclusion that a group of doctors could sit around in a community hospital with a medical educator or director and decide what they needed to know. We don't think this is possible, and I think you have got to in some way evaluate yourself privately to find out, because you frequently are humiliated to find that you don't know near as much as you think you know, and it is a very embarrassing, but very stimulating thing to find out privately.

CHAIRMAN HALL: I have bought the examination with the cooperation of Dr. Butt and Dr. Rosinski, and I gave it to my graduate students in medicine at our institution, and I found some commonalities in which my men were not performing in the nine areas that you had separated them out. This gave me the ammunition I needed to go back to the faculty and say, "We have to beef up in this area."

Our next speaker is Dr. Thomas Brem, who is relating his concept of the Advisory Board of Medical Specialties in its relationship to evaluation.

DR. BREM: Last night as well as today, I think that the comments made it quite apparent there are several different levels of evaluation. The boards, themselves, are concerned themselves with evaluation of individuals, the Review Committees are evaluating, really at another level, and there are other programs, resources and so forth at various institutions attempting to put on a good educational program.

My report is involved in another level of evaluation. I don't mean to say one is more important than the other, or one is higher than the other, but they differ. The level at which the Advisory Board operates is really the national level involving what we think is the total need of the country, the consumers of medical care as well as the providers of it, and, as a consequence, this sort of body should be rather broadly constituted. Here I might mention Dr. Elling's suggestion of having people from outside of medicine -- knowledgeable, well-informed, objective groups -- who can survey the whole territory and give us, perhaps, some little ideas as to what are the directions we should be going.

The Advisory Board consists of representatives of all of the specialty boards, in addition to other organizations that are concerned with and involved in graduate medical education. The American Hospital Association is represented on the Advisory Board. The National Board for Medical Examiners has its representatives. The American Federation of State Boards. A couple of others. The Educational Committee for Foreign Medical Graduates participates, and the Association of American Medical Colleges. There are six, I think, altogether that are represented on the Advisory Board for Medical Specialties, and I think this is an indication of the recognition of the Advisory Board that it does have quite broad responsibilities that involve a good deal more than simply evaluating individuals or evaluating programs.

The major evaluating function of the Advisory Board is the receiving of proposals for the establishment of new specialty boards, and this has been a primary function for many years now.

The process is something like this. A group that feels that it is desirable to establish a new certifying board with examinations, programs and so forth, submits its proposal to the Liaison Committee. It is a committee consisting of representatives of the Advisory Board and the AMA Advisory Board on Medical Application which reviews preliminary applications and attempts to make a decision as to whether the move is desirable for the community as a whole, for medicine, for medical education and for the improvement of standards of practice in the country.

Well, I will submit that this is by far the most difficult sort of evaluation of all. The Resident Review Committees are next, and I have spent a number of hours on the Resident Review Committee on Internal Medicine. I note it is exceedingly difficult to evaluate those programs, but it is duck soup compared to evaluating the greater problem as to whether a new specialty board should be in existence, and whether this is really in the public interest. We make decisions. Certainly, oftentimes, they are not received very happily by the proposers but they are made in vast conscience, and with a great deal of study.

Now, right at the moment, as an example, there are three new boards being proposed before the Liaison Committee. One of them has its application for a new Board in Family Practice.

We have an application from the Nuclear Medicine people who wish establishment of a conjoint board composed of representatives of the pathologists, radiologists and internists. This is a preliminary application that will be reviewed, and it will be up to the Advisory Board and the Liaison Committee and the Council on Medical Education to make an evaluation and decide whether this is desirable from the national standpoint.

Third, an application submitted by the American College of Clinical Immunology and Allergy which is additional to the present sub-specialty board of the Board of Internal Medicine in Allergy.

It has been debated at considerable length as to whether it is appropriate to set up a second board in allergy.

There are many changes going on, in graduate medical education. I find that this past year -- since I have been an officer of this Advisory Board -- I have been involved in a dozen meetings to discuss the Commission on Higher Medical Education and Graduate Medical Education. Some of the functions of the Advisory Board will be transferred, I expect, and that, presumably, would be the organization that would take the broad look at the needs of the country and how the various organizations involved in our specialty or graduate programs are functioning.

There will be changes, I think, in the Advisory Board, which has been a nebulous sort of organization, without much in the way of authority, and I think that the members of the Advisory Board and the specialty boards that are the parent organizations are beginning to feel, too, that there has to be an organization that ties them together more closely and makes some decisions which will be binding on all of them.

You still have a good deal of parochialism among our specialties, but I sense, as Dr. King mentioned about the neurosurgeons, that all of the specialties are beginning to become a little more flexible and reasonable.

DR. ANGELIDES: Has any effort been made to try to coordinate overlapping requirements or functions of specialty boards so that it leads to shorter training periods, reduction of faculty time, avoidance of repetition within the same hospital of the same course material? You alluded in the latter part of your statement to a group which would act as a clearing house for coordinating all these evaluative criteria and would act as a focus by which you could splash over to other boards. This is a very dynamic role. I don't know if you are prepared to undertake this, but has there been, at least, any thought given?

DR. BREM: There has been thought, Angie. Since I have been on the Board, and long before that, the Advisory Board has not really paid a great deal of attention to the content or the program of an individual Board once it has been approved.

I think we all think this is one of the weaknesses of the Advisory Board, that we should be concerned with the content of the programs of the various specialties. I don't think any of us believe that we should be designing curriculum, but we should be taking an overview of the practices and policies of the constituent boards. We hope that that will be one of the authorities that will be delegated to the Advisory Board in this rather changing situation.

To me it is rather disturbing that once a board is approved it can do almost anything it wants to do without having to come back for reapproval of the Advisory Board as a whole. It strikes me that this is contrary to our concept of corporate planning of educational programs. At least major changes in policies, in requirements and things of that sort proposed by any individual board should come back to the Advisory Board as if it were a new program.

This may come about. It depends on how much authority individual boards are willing to delegate to the overall Advisory Board.

DR. HUSTED: You set no criteria or limitations once approval is made.

DR. BREM: Pretty much so.

DR. HUSTED: No pattern they must follow or recommended patterns.

DR. BREM: Pretty much on their own after that.

DR. KING: Dr. Husted pointed out in the context of his argument, that among other things external agents are not adequate units for determining educational programs aside from the school as a unit of scholars. That is where he put the "buck."

Now, obviously, Mr. Millis has read this, and many of us have deep concern that this, in fact, may be true. How do you weigh this philosophy with your statement that, perhaps, an Advisory Council overriding the Board -- which is yet one more unit detached further from the universities and the educational units -- should have power to control and direct and design and modify educational programs. That is a sticky wicket. I would like to hear it discussed.

DR. BUTT: May I ask my question before Tom's answer? I think he can answer them both, Jack.

CHAIRMAN HALL: All right.

DR. BUTT: If you can do as Dr. Brem said -- have some control -- then, the status quo does not remain the same sacred cow. They are out after two or three years on the Commission, out of the boards, and in this way, you can answer part of your question, a dynamic infusion all of the time of academic people, and you won't have what we have today in some boards -- people who stay fifteen and twenty years.

CHAIRMAN HALL: Tom, would you like to address yourself to Dr. King's question?

DR. BREM: I don't know if I can adequately answer the question. Yes, this is one that is going around and comes up at most of these meetings, and that is the question of the role of the university in graduate medical education. A lot is said about this, and at the AMC Workshop on Graduate Medical Education last fall in Washington, D.C., as well as in a meeting in Houston later, a rather strong consensus was voiced that a great deal of what is being done now by boards and review committees, particularly in regard to the design of programs, is being left up to the universities.

Well, I don't know whether there would be great objection to this, but I do believe that at the moment the universities are not ready to do this. They might be in the future.

An example, for instance, was the interest of the universities that was displayed at the Council on Academic Societies Meeting. I think a half-dozen university presidents were invited, and John Millis was the only one that turned up, and, yet, this whole thing was on the role of a university in graduate medical education. I don't really think the universities, themselves, have much interest in it. The medical schools may. But I find the medical school itself is not sufficient. This is a university function, an obligation. So, even though this might be desirable, I don't know whether it is realistic at the moment.

I do think it is tremendously important for the Advisory Board on High Commission on Graduate Medical Education to encourage flexibility and experimentation in the design of programs and not be too terribly worried about the format of it, about the curriculum. More important are the resources. Does the institution have the basic resources to put on a modern educational program in surgery or orthopaedics, O.B., medicine or whatnot?

DR. GEORGE MILLER: Tom, you have indicated that the deliberations of the Advisory Board are primarily addressed to educational issues, questions and decisions. I would raise the question of whether this is, in fact, accurate, or whether their decisions and actions represent a kind of vector resulting from a variety of political forces without much regard for educational principle.

I ask this question for the simple reason that if education -- which means facilitation of learning -- is the principal objective of graduate programs, then, how can the Advisory Board justify the approval of any residency or specialty requirements whose base is upon a temporal requirement for training, because if learning is the goal, then, the time it takes is the time it takes.

I wonder the extent to which the Advisory Board might not profit from addressing the question of justification for any kind of temporal requirement for residency training.

DR. BREM: I think you are perfectly right, George, and this is another one of the authorities, really, the Advisory Board has never had. The question has been asked as to why there are absolute time requirements. We haven't been in a position to say that has got to be a flexible thing, and, really, you are talking about individuals, and they mature or learn at different rates.

DR. GEORGE MILLER: If I understand it, the Advisory Board does approve new boards.

DR. BREM: It does that, yes.

DR. GEORGE MILLER: And the function of the Board is to establish the competence of those specialties, and that competence is based upon time of training, and, thus, the Advisory Board is, in fact, using this as the justification for the approval of a new specialty.

DR. BREM: Part of it. Yes, it does. Well, it has, of course, accepted the rather inflexible time arrangement as part of the whole thing, and it may be at fault in this. You are perfectly right.

DR. MIXTER: There is one aspect that has not been mentioned, and that is that there is a certain peculiarity of American medicine -- that no aspect of medicine in this country is a federal responsibility. In every other country in the world, the entire course of medical education, including licensure and specialty certification, is a central governmental function. That is not true in this country. There had been no definitive article in the literature devoting itself to this aspect of the problems that we confront.

67

There has been, however, in the Cornell Quarterly Law Review a broadly based article on the subject of accreditation of educational programs. It does apply to graduate medical education although graduate medical education is not mentioned specifically in the article. It is a very interesting concept that in American law any organization which sets itself up as an accrediting agency after a certain length of time is accepted by the public and generally becomes *de facto* an accrediting agency. It is a rather strange and peculiar setup, and I think anybody concerned with these problems ought to familiarize himself with the obligations which devolve upon these self-constituted accrediting agencies. It is a terrifying affair, and our law department is extremely concerned about it, because these agencies, although they have never been challenged, are open to suit, and one such suit may bring down the whole structure down around our ears. It is astonishing on what a tenuous basis this whole accrediting structure is founded. It really is terrifying.

DR. RAY ELLING: It is quite fascinating to note -- and I don't think it is simply the role of government that is the difference -- that the development of medical specialties in Britain has been very different than in this country. The whole division of labor, in the field of medicine is quite different; the functions performed by different groups. There might be some place here for some analysis, comparisons as to how this has occurred historically in these two different settings.

DR. MIXTER: Canadians, too, have an entirely different structure. Most interesting.

If Jack Nunemaker were here, he would certainly comment about his recent experience in a medical school survey in Canada to which the Council on Medical Education of the AMA does contribute as well as the Royal College.

At that particular survey, not only was the school accredited, but the graduate medical programs. The residencies, also, were looked at, and a report sent back to the Royal College -- which is their accrediting agency -- and this whole package was looked at at one time. Most interesting. I think, maybe, our Canadian neighbors have got a better system than we have in many ways.

DR. STEARNS: Dr. Mixter, I am just not sure what you are saying are the recognized accrediting organizations in this country. Are there ones other than what we are talking about today?

DR. MIXTER: In the allied medical field, yes.

DR. STEARNS: Not in medicine.

DR. MIXTER: In medicine we have set up our own accrediting agencies without anybody except the people involved saying that is what they want.

DR. STEARNS: You are not inferring that a governmental system would be better?

DR. MIXTER: No, I am not at all. I am just saying that it is different from anything anywhere else in the world.

DR. STEARNS: By the will of the people, you mean the doctor people or the people people?

DR. MIXTER: The people people are the ones who could object. The doctor people are the ones who are least likely to raise some objection. People people don't know much about this and, as a matter of fact, doctor people don't know much about it either.

DR. BROWN: I was wondering if Dr. Brem could give us an example of the kinds of data that the Advisory Board collects to facilitate their decision-making process with respect to the establishment of a new specialty, particularly, with respect to consumer needs. I think you stated directly that this is one of the concerns of the Advisory Board, the concern with the needs of the public, consumers, society. Would you give me an example of the kinds of data you collect to facilitate your decision-making process in this area?

DR. BREM: I really don't know that we have any organized data on the demands, desires, of consumer bodies on which judgment is made. Opinions, but not data. I am not even sure, really, that there are data of that sort.

DR. BROWN: Some people think there are, I guess.

DR. BREM: I am not sure I know how much it would be worth to have a labor representative, for instance, give his opinion relative to a health program, or as to whether it would be desirable to have a Board of Nuclear Medicine. Really, I don't know where you would derive meaningful and helpful data on those things. But we don't get it, to answer directly your question, Dr. Brown.

DR. HUBBARD: I spoke earlier of the question of time requirements. George Miller has, I think, gone one step further and suggested that the Advisory Board should withdraw -- or the specialty board should withdraw all time requirements. I don't think I would go that far. The reason that I would not go that far is because, as we were saying last night, there are certain things that are very difficult, some things that can't be measured in the competence of a physician, and I think there is something known as maturity that comes with experience that is important to include in the requirements for certification.

I would like to know that the surgeon that is operating on me has had certain years of experience doing what he is going to do to me. So, I wouldn't go so far as to propose to the specialty boards that they withdraw all time requirements. I do think they ought to be more flexible.

DR. McGUINNESS: Some are planning to be, and, some, actually, are beginning to be.

CHAIRMAN HALL: The next presenter will be Dr. Robert Moore, Secretary of the American Board of Surgery.

DR. ROBERT M. MOORE: The American Board of Surgery, Inc., was chartered in 1937. It was the fifth of the surgical boards to be organized.

It was chartered under the laws of Pennsylvania and organized under State laws.

At the beginning the Board had thirteen members, all appointed for six-year terms, no man being allowed to serve a second term except the full-time Secretary-Treasurer whose membership on the Board is determined by the length of his office. The American Surgical Association, the American College of Surgeons, and the Section on General Surgery of the A. M. A., each nominate four of the current eighteen members of the Board. The New England Surgical, Southern Surgical, Western Surgical, Pacific Coast Surgical, Central Surgical, and The Society of University Surgeons have one representative each, serving a six-year term. The Secretary-Treasurer is the nineteenth member and three years ago we brought to our office a full-time Associate Secretary-Treasurer who has since been made the twentieth member of the Board.

After the Member completes his six-year term of Active Membership he becomes a Senior Member and usually helps with our Part II (oral) examinations for a number of years. A great deal of interest and loyalty is attached to this service he renders us.

It is obvious that we are going to have to increase the Active Membership because of the increasing demands upon our Members.

Prior to 1950 there was a great deal of confusion as a result of two lists of approved surgical residencies being published annually, one by the American College of Surgeons and one by the Council on Medical Education (and Hospitals) of the A. M. A. These two lists did not agree; one year a Training Program would be put "on probation" or removed from list while at the same time it was being added as a newly approved Program on the other list. Finally, in the late 1940's, confusion became so great that the American Board of Surgery prevailed upon the other two organizations, the College and the Council, and induced them to join with it in forming a tri-partite residency-review committee, and at that time each of these three organizations relinquished whatever rights it had previously held in approval of surgical training programs, assigning these rights to this new tripartite Committee -- the Conference Committee on Graduate Training in Surgery (which recently changed the term "Graduate Training" in its name to "Graduate Education").

This Committee at the moment has under its charge 492 approved Training Programs in Surgery in the United States and its territories, which provide posts for 6,589 surgical residents. Ordinarily in each of these Programs the Chief of Surgery can send one of his junior residents to any other hospital he chooses on a rotation up to six months without reference to the Conference Committee. In the senior residency year, however, a rotation of even one month away from the approved parent institution must have the Conference Committee's prior approval. At any level of training such a rotation for more than six months also must be approved by the Committee.

As to the requirements for certification, when our Board was established there was a five-year requirement, three years of formal training followed by two years of practice or additional training. After ten years, in 1947, the training was divided into two Programs: the Group I Program in which the candidate trains in a Type I (four-year) surgical residency for the entire four years, and a Group II Program in which the candidate trains in a Type II (three-year) surgical residency for three years, and then takes two years of additional training either in a surgical specialty or in general surgery.

During the past few years we have started shortening training. Our Group II Program will be phased out as the three-year or Type II residencies are being discontinued, and as of June 30, 1968 the Conference Committee ceased entertaining any applications for new Type II surgical training programs. As of June 30, 1972 all of the three-year residencies in existence will lose their accreditation. A number of them, by joining with other hospitals, will become four-year Type I residencies. Others will just disappear. In 1951 forty per cent of our candidates were Group II candidates, having trained in Type II surgical residencies. Now only nine per cent are Group II candidates and in a few years those of this classification will gradually disappear.

In 1957 our Board added a very important and strong requirement which should have been added years before -- the senior year requirement. This meant the end of the old "pyramidal" system of surgical residency, in which only one chief resident of each year's crop of junior residents advanced to the final or senior-year of experience. Now, the resident must continue through the senior year of the residency program in either the Type I or the Type II residency if he is to be accepted by the Board. This has enabled the Board to assure that every certified surgeon we turn loose upon the public has himself done quite a volume of operative surgery in a variety of fields while he has been under supervision in training.

In 1965 our Board made it obligatory for every applicant to submit a certified list of the surgical operations he himself had performed during his training. It was the belief that if enough operative work was not being turned over to the resident during his training we could not certify him to the public as a practiced surgeon when he set out into private practice.

This requirement came at a fortunate time. That was the year when Medicare and Medicaid were established, and, with other organizations, we were concerned lest a disappearance of "indigent" patients would destroy surgical training in the United States. In 1966 the crop of surgical residents completing their four-year training program submitted the required operative lists to the Board. Over six hundred who had completed the Group I Program had performed an average of 504 major surgical operations during training. This set a base-line. In 1967 it proved that the corresponding group had performed an average of 511 major operations each, and in 1968 a larger group had performed 523 majors each. To date, then, there has been no evidence of Medicare and Medicaid seriously damaging this aspect of surgical training.

Another great problem for the American Board of Surgery has been the increasing number of foreign medical graduates coming to its examinations. Fifteen or twenty years ago it was a rarity to see a foreign medical graduate at one of our examinations. Then they began to appear frequently and the number and proportion have increased progressively, without a break, for twelve or fifteen years. Of the 925 new candidates coming to our Part I examinations for the first time in December 1968, 36.8 per cent were foreign medical graduates who had come to this country and taken their four or five years of surgical training here. (The remaining 63.2 per cent are classed as "domestic medical graduates," having been graduates of medical schools in the United States or Canada.)

Our first Part I examination was given in 1937. After the first twenty-six years, in 1962, of all the candidates who had ever taken the Part I examination 90.9 per cent had eventually passed Part I, by examination or by re-examinations.

The first Part II examination was given in 1938, and in 1963, after the twenty-six year period, it proved that 91 per cent had passed Part II eventually, by examination or by re-examination. However, only 80 per cent of the candidates who had taken Part I had eventually become certified, and not 82 per cent, since there is a small though constant loss between the Part I examination and certification. A few candidates leave the practice of surgery for other practice, or for full-time research, and are thus no longer eligible for Part II; an occasional candidate is denied admission to Part II because of unethical or immoral practices; and almost annually at least one candidate who has passed Part I dies prior to his completion of the Part II examination.

The figures just given on our 26-year pass rates were the base line prior to the recent more rapid increase of foreign medical graduates. I am sure that through the years succeeding 1963 this high pass rate would not hold; the foreign medical graduates have run too high a fail rate in the Part I examination, which is of the multiple-choice type. When 13 per cent, 14 per cent or 15 per cent of the United States and Canadian graduates failed, over 55 per cent of foreign medical graduates were failing Part I the first time they took it. That figure has now dropped to 43 per cent, still much higher than for the "domestic" medical graduates.

We have been worried over another development the past six or eight years. Along with the increasing number of foreign medical graduates we have noted a progressively decreasing number of U.S. and Canadian applicants. Why fewer United States and Canadian medical graduates are now going into general surgery we do not know. It happens that the influx of foreign medical graduates has just made up for this loss, since our total number of applicants has remained nearly constant. Our surgical training programs are only 90 per cent filled, so it hasn't developed because there has not been enough room in the approved surgical residencies for both groups. Still, we do not know the reason this decrease in the domestic applicants has developed.

We also ask ourselves, "How many general surgeons do we need in the United States?" At a recent committee meeting one of our own Members came up with the estimate that, based upon the proportion of major surgical operations done in this country by general practitioners and by osteopaths, he and some others estimate that we need one general surgeon for each ten thousand of population. Visiting was a representative from the Royal College of Physicians and Surgeons of Canada who pointed out that in a recent survey made in Canada they had decided that they needed in Canada one general surgeon for each nineteen thousand population. Osteopaths are not licensed in Canada, but the Canadian surgeon estimated that the general pratitioners perform fully fifty per cent of the surgery done in Canada although they are relatively untrained in surgery.

Our Board is beginning to take interest in In-training Examinations. We would have to enlarge our Board greatly if we went into this field.

These, then, are some of the problems we have been encountering -- more foreign medical graduates, fewer domestic medical graduates, the matter of assuring sufficient operative experience during surgical training, and a number of other problems. Right now I believe that most of our Members will welcome the time when we can drop the internship year. We are all in favor of shortening graduate training in surgery by at least that amount. As soon as the State Licensing Boards come around to this I think the internship will be dropped as one of our requirements.

DR. McGUINNESS: I have a couple of brief comments and one question about the foreign medical graduates. It is my chief area of concern as most of you know. Fifty per cent of the foreign medical graduates pass the ECFMG examination at the level that it will be passed by the lowest twenty per cent of the United States graduates, and about a quarter of the foreign medical graduates pass the ECFMG examination with a score of 75 which is the level at which the 97th man out of 100 United States graduates would pass the examination. That is number one. Secondly, hospitals in the United States have the discretion to decide whether in their opinion a given applicant for a residency needs first to take a United States internship, or whether he can be admitted directly to a residency. It is our strong feeling and our strong recommendation to every foreign medical graduate who consults us that he first take a United States internship. But we know that many hospitals admit these boys directly to residency training without a United States internship, so that many hospitals approved for residency training in surgery are getting people who academically are at a substantially lower level than the United States graduate as evidenced by this one measurement let alone all of our other cultural and other problems that we don't evaluate.

Since a great many of them go right into the residency, I think it is quite remarkable that they do as well in your examination as you say they do.

My only question is do you accept a year of straight internship in surgery in lieu of the first year of the surgical residency?

DR. MOORE: The answer is "No," a straight internship will not substitute for the year of internship following graduation insofar as our requirements are concerned.

However, our Board does accept foreign internship in the case of a foreign medical graduate. The reason we have done this is the five-year limit on his Visa under the Exchange Visitors Program.

DR. McGUINNESS: You see, the foreign internship in the majority of cases is probably not nearly as applicable as the United States surgery or clinical surgery.

DR. MOORE: The other reason we would like to drop the internship requirement is that for fifteen years most of the people on our Board have thought that the internship year had become more and more a wasted year for the individual who is then to take a four-year surgical residency, and that we wouldn't be requiring our candidates to take it except that the State licensing boards have required an internship.

CHAIRMAN HALL: We are going to have to change the sequence today so we can have the advantage of the Association of American Medical Colleges. Dr. McNulty has other demanding phenomena this afternoon. I wonder if Dr. McNulty could give us the AAMC's view relating to evaluation in graduate medicine.

MR. MATTHEW F. McNULTY, JR.: I would offer three observations. I would certainly urge the introduction of public members into the education evaluation process. That gets to be a rather glib term nowadays, but if you look at the medical family -- of which I include myself as one -- and say that we exist by and large to serve society, then, I think society is entitled to participate in decisions as to how we are going to determine the qualifications, the performance, and the attainment of those who are going to serve. Introduction of public representatives into the evaluation process without destroying professional peer review will not be easy, and there are a number of "pro's and con's" that can very well be debated. However, I, for one, would urge it.

I would also urge development of some method by which we could evaluate both the goals of education and the goals of patient care. We have so much trouble reconciling them, and, perhaps, some part of the reconciliation might evolve from careful scrutiny of the goals of both of these type activities. Finally, I have been groping, as we have been sitting here, for some enlargement of this exercise. How do we get it to many other institutions that represent what are called teaching hospitals, meaning the Council of Teaching Hospitals? How do we get any sort of evaluation into both the institutional in-service and the practitioner continuing educational programs that are now receiving so much emphasis?

Now a word on organizational evaluation. Your emphasis is educational evaluation, but I think you would want to know that the AAMC has existed since about 1876, and, after that long period of time, has completed an evaluation of itself and has evolved changes as a result of that look. Those changes are now coming into being, in terms of organizational elements of the AAMC, as opposed to one element of organization before. Now there is a Council of Deans, a Council of Academic Societies, and a Council of Teaching Hospitals.

The Council of Academic Societies is looking at graduate medical education as it relates to the university. The Council of Teaching Hospitals, and a recently formed Federation of Allied Health Science Activities, will provide an umbrella, hopefully, for all of health education, so that there can be accomplished a forum for representation, discussion, debate; and, hopefully, leadership and action positions.

The AAMC is engaged also in the accreditation process with the AMA, through the mechanism of the Liaison Committee, which is an authorized representative of the National Accreditation Council.

They are also engaged in urging some type of commission, council or body of interested groups to constantly determine, evaluate, and recommend national position concerning foreign medical graduates.

One comment about the role of the university and graduate medical education as related to the AAMC conference in Washington on October 2nd to the 5th, 1968. I think it is too early to determine any specific trend. There are positions and purposes related to many vested interest groups. I am not sure that a movement to universities or a movement from universities to hospital-based graduate medical education or a combination of both necessarily constitutes a threat to any of the existing activities. I think there can be an evolutionary process here in which the goals and roles and ambitions and interests of all can be to some degree preserved. Perhaps education at the internship and residency level can be put in the same institutional framework as is undergraduate medical education, utilizing the strengths of all elements.

I don't see, parenthetically, any particular disinterest on the part of university presidents by their failure to show up at this meeting. I think anyone who has been with a university president in any capacity for a couple of months would quickly realize they are not out looking for work. If this meeting involved the possibility of more responsibility for the university, this would be about the last place a university president would want to show up. Somehow we need to create the exercise model so as to provide intellectual, organizational, and university-goal-setting stimulation to attract university presidents.

I think, if he can be challenged as to the educational benefit to the society for this sort of organizational and management arrangement, and also be given reasonable assurance that the resources necessary for the undertaking will be forthcoming; then I believe we will get a responsive reaction. I think we will, also, from the teaching hospitals. Many might consider themselves threatened at this point in time, but I don't think that necessarily follows.

I wanted to close by indicating another educational activity of the AAMC, and that is the workshop on medical school curriculum. I would just quickly read the conclusions of this particular endeavor which was held in Atlanta from September 18 through 22.

The recommendations first:

> "The overriding recommendation of the workshop is that medical schools must now.actively revise the content and method used in the total span of the education of the physician so that his professional competence will be most relevant to the meeting the changing of needs of the people."

Rather universal, but I think it was intentionally meant that way. The words were chosen with emphasis, and, hopefully, put together to accomplish an action orientation.

Then, the recommendation is in more specifics:

> "Medical schools must increase their output of physicians. All schools should immediately increase the number of entering

students, accelerating expansion by redistributing temporarily the use of existing resources. Medical schools must admit increased numbers of students from geographic areas, economic backgrounds and ethnic groups that are not now adequately represented or that are now inadequately represented.

"(3) Medical schools must individualize the identity of the physician to meet the student's varying rates of achievement, various educational backgrounds and different career goals.

"(4) Medical school curricula should be developed by inter-developmental groups that include participation of the students. Curricula should be ratified by the faculty as a body rather than by individual departmental chairmen."

A slight attempt at humor. Eradicating fiefdoms is going to be a very interesting endeavor, but this seems to be most desirable and most necessary.

"(5) The medical school must now assume the responsibility for education and research in the organization and delivery of health services."

Let me quickly enumerate some of the findings. Many of you were participants in Washington, but just, perhaps, for the record, I will quickly read them.

"Duration in years: A trend toward shortening of the period between high school and the award of the Doctor Degree is present, though small. Nineteen of the one hundred and one schools that were evaluated as part of this process indicated that this was a significant part of their curriculum change, the shortest time being six years. Two schools planned to extend the duration of medical education for selected students.

"Duration of each year in weeks: Each academic year tends to be longer, become longer, when the schools shift from the business to new curriculum. The first two academic years -- fewer schools request thirty-two week calendars, or more -- were longer. The assigned time fraction, the rigid assignment of course time throughout the medical school curriculum is giving way to an invested amount of free time and elective activity.

"The content of the curriculum: The traditional courses of anatomy, biology, physiology, etc., and the clinical services are all being reduced in terms of the total number taught. The drop from the basic science courses are about 25%; in the clinical, 10% to 15%. Part of this released time will be used for new basic science courses; molecular biology has been added in thirty-four institutions. Human genetics, in twenty-five institutions. Biomathematics is a new course in eighteen schools.

"The teaching format: The rise of the inter-disciplinary teaching and the increased integration between the undergraduate and graduate levels are accelerating developments. Teaching facilities and materials, individualism, early patient contacts, grading and evaluation, the change process and many other areas of examination and change were all findings from the study."

CHAIRMAN HALL: In development of the relative in-service educational program for graduate education, based on your experience and background in hospitals, would hospitals and medical schools be willing to foot the bill for this costly endeavor of development of good measuring techniques?

If these techniques are to relate to the practice of medicine in a relative sense and to the practice and its future needs, it is going to be very costly to survey the present state of the art, survey the performance of people, and, then, how our educational programs should be structured and our evaluation procedure structured.

MR. McNULTY: Jack, generically, I would respond "yes." Specifically, I think here you get into the tradeoffs or priorities related to resource in which we all deal. There is a finite amount of manpower, space, equipment and money.

So, therefore, the tradeoffs are: How do we utilize this finite amount of resources at this given point in time; for protracted periods -- say, twelve years; and in the short-range projection, usually, three years.

I would think evaluation is a mechanism by which you determine whether the use of the resources is being productive; therefore, in my opinion, any "evaluation" proposal would have a high priority for consideration. In the final analysis, however, what projects should be given what rank order by what group of vested-interest participants for a finite number of resources?

DR. FREYMANN: I can pick that up as a former hospital administrator whose scars are not healed yet. It seems to me that you are talking about evaluation. We ought to look really at what hospitals are really doing, and not confuse activity with achievement.

You look at hospital statistics, and you know how many patients came in the door and how many go out, but you know damn little of what was achieved. I think evaluation of patient care is a very legitimate use for operating income of hospitals, and I think the evaluation of education is just a spinoff of this.

DR. ANGELIDES: How can you evaluate and commit funds on a cost-effective basis, Matt, if you don't first evaluate the problem and have some idea of what you are being committed to accomplish?

We are doing it by the seat of our pants now, but I wonder whether or not you can avoid evaluation of what you are doing. There is a finite amount of money, and it has to be allocated, hopefully, effectively.

MR. McNULTY: Let me put it in very practical terms. With this finite amount of money, the competing interests get to be very pragmatic forces. You find the intellectual benefits and the hard operational benefits that can come from an evaluation process with surgery, medicine, and other disciplines saying, "But there are a thousand more patients at the front door, and they must have this refined type of equipment, which is going to take this additional amount of space and this additional amount of money for manpower."

This is what I mean by the tradeoffs, and I think we need a platform from which we indicate the benefits that can come from evaluation and indicate that they are just as useful to society as taking care of the thousand additional patients. But they can't be negative, they can't be, "We are not doing this when we should be doing it."

CHAIRMAN HALL: I think our educational institutions have been testing what the needs of the teachers were, much more often than testing the needs of the students. As we go into graduate education, this is very critical to us, for we are testing our educational procedure relating to the needs of the patient. As you pointed out to us, we are a service profession. All of the health professions are service professions, and we must address ourselves to this as we set up our objectives and evaluation procedure of these objectives.

MR. McNULTY: You have an additional ally now in society, and the activist student who, I think, wants some evaluation of what it is you are giving him and is it of any value and is it going to be useful to society for the first year, the fifth year, the tenth year, the twentieth year.

CHAIRMAN HALL: If you doubt this, did you read the editorial in the Student American Medical Association a few months ago? The students observed that many of the curriculur adjustments the faculty was engaging in were, as in the practice of chiropractic, making adjustments without knowledge of the cause.

DR. STEARNS: At the risk of repetition, can I interpret what you said to mean that the policy of the AAMC is that graduate medical education shall be in the future in the province of the medical school and university hospital?

MR. McNULTY: I don't think any policy has come out that clearly defined. I think at this point in time there is a clearly defined consensus that the existence of internship, residency, and fellowship graduate medical education ought to be carefully examined, and that current examination as conducted to date describes many benefits for the location of this activity within some form of university aegis.

We may be talking of a ten-year or fifty-year evolution. That part isn't clear. I think there is a slight trend for the institutions that are members of our Council -- 345 of them, which represent about 23 per cent of the acute beds in the country -- there is a slight trend for those that have been long free-standing to become associated with universities. I don't think this trend follows any position that the AAMC has taken.

DR. STEARNS: I think this is fundamental issue of concern today. Is there any reaction to that from the AMA or the AHA?

DR. MIXTER: I have a couple of facts that stem from some of the comments on the numbers of orthopaedic programs, the number of general surgical programs, which are unaffiliated. I have the "bible" here, Medical Education in the United States, which most of you are familiar with. I pinched some numbers out of it. To start in the middle, almost exactly half of the programs in general surgery are university affiliated or medical school affiliated. To go to one extreme, approximately one in four of the general practice programs are medical school affiliated.

Of the orthopaedic programs, almost exactly two-thirds are affiliated with medical schools. The dermatologists, precisely three-quarters, and the neurologic program is precisely 90 per cent.

Those are just representative of the spread of residency programs which are or are not medical school affiliated.

DR. STEARNS: These are factual representations of what may be a reflection of necessity. The question is what is the policy? How does the AMA react to this policywise?

DR. MIXTER: I think Jack Nunemaker is going to talk about this.

DR. JOHN C. NUNEMAKER: Not unless I am asked to. I don't think there is going to be time. I don't believe the AMA has a policy on that.

We received a Millis Committee recommendation which I am sure you are aware of. In some of our personal speculations, Bill Ruhe has said it doesn't strain his imagination too much to suppose that in the next generation or two -- after we are all gone -- we might not have any specialty boards, but that university degrees would designate specialties. There wouldn't be a need for a specialty board.

So, Bill is supposing that all graduate education will somehow relate to a university and be recognized by some advanced degree. This is just idle chatter. We don't have a policy that something should be thus and so.

This book that George speaks about we use as our annual reflection of trends. We go back over the last ten years, look at the ebb and flow. You will get an idea of what is happening, and the best we think we can do is show people what has happened and let them draw conclusions.

DR. MIXTER: If you project the curve that we know now is the continuing decline of independent programs and continuing increase in affiliated programs, you can't make a straight line prediction, but it looks like it would take, anyways, fifty years at the present rate.

DR. STEARNS: To have all programs affiliated?

DR. MIXTER: Yes, something like that, and, furthermore, the university, as Matt pointed out -- the universities aren't in a position to take on much more than they have got now.

DR. STEARNS: On the other hand, if the trend for the university to take on more and more affiliation with community hospitals -- who represent the other spectrum with the training of undergraduates and extended into graduate education -- it may happen an awful lot faster than fifty years, like maybe five.

DR. MIXTER: That is what I say. You can't predict a straight line because there are forces involved here that weren't operative in the past, and, so, any prediction we make from past trends is rediculous.

DR. STEARNS: But the forces can be moved by thinking in terms of what will potentially yield the desired result, which is, maybe, more medical students and more trained surgeons and more trained orthopods in a combined effort between university and community hospital utilizing existing resources for expansion. George, I am sure, is concerned with this and others, too, and there is nothing wrong with making policy if it looks like a good thing. I hear Matt McNulty saying this is what the medical schools may think is a good idea, because they have a better way of controlling things. I hear you saying this is the trend, anyway.

I don't know what the American Hospital Association says. I think our Association would probably say it is a good thing. If everybody says it is a good thing, maybe it shouldn't take fifty years. Maybe it should take five.

CHAIRMAN HALL: I can't constrain myself not to comment at this point. I think I would agree with you if the association is a reciprocal one. It is a merging of the academic excellence with the demands and needs of the population for health care.

I think that AHME represents better than fifty per cent of the practicing physicians or fifty per cent of the practicing physicians are associated with institutions who have directors of medical education of our organization.

DR. HUBBARD: Mr. McNulty, I find it very difficult to understand why the hospitals of the country -- and I will say the hospitals, I won't cite your Council or the AHA or the AMA -- but why the hospitals of the country are doing virtually nothing, to learn more about the competence of a large group of interns and residents serving within their walls. I am referring, of course, to the foreign graduates.

I suggested last night that maybe some national program might be mounted to get information as to the competence of this large segment of individuals who are serving the American public in American hospitals. This suggestion, I think, had about the buoyancy of a lead balloon, but would you care to comment on this?

MR. McNULTY: Over approximately, perhaps, the last six years a great deal of the leadership capability in hospitals has been distracted from critical inquiry of a number of developing activities because of simple, but total, demand on energy and ability to stay solvent, stay in existence, adjust to the new forces that have come into being in terms of additional beneficiaries in society, additional demands in society, and an activist type of student group and public group. Briefly, overwhelming societal demand and need has precluded many other desirable endeavors.

Your next question might then be simple: That is, if you would eliminate these forces would these hospitals immediately jump to the opportunity that you indicate? I think not, and I think there the challenge is to groups of this type, to the AHA, to the AMA, to the AAMC, to your group which has such a repository or expertise and know-how. We have to get their attention, and, then, once we have gotten their attention, we can move on. How do we get their attention? Just through the time worn system of keeping working at it. However, I would add that an AAMC-sponsored endeavor in this area during 1966-67 will be issued shortly by the Harvard Press that represents a positive action by AAMC including its Council of Teaching Hospitals.

Mr. Chairman, may I say for the record, I may have expressed something so poorly that Norm interpreted this incorrectly, but I would want the record to indicate that at this point in time the AAMC is in the same position as the AMA. We do not have a position.

DR. GEORGE MILLER: The implication seems clear on all sides that the desirability is moving graduate training into the orbit of the university. While this may have a universal appeal, I would hope that if it were brought about, then, the university would begin to exercise some of the spirit of critical inquiry it is supposed to represent in looking at those educational programs. The only systematic study of the internship, for example, was done of university hospitals, the Saunders Study. I don't think one could be very happy about the findings that were brought forth there. Yet, the responsiveness of the university to that study has been almost non-existent as far as I can tell.

Sickness and Society may not be a popular document in university circles, but it is one of the first systematic studies of this delivery system in the context of a university hospital.

We happen to be moving out into the community now as a university. My hope is that we can do a study comparable to Sickness and Society in some of those community hospitals before the university moves in and after to see whether we improve, fail to alter or, in fact, to do harm to this system that we are talking about.

DR. McGUINNESS: The very existence of the organization which is sponsoring this conference is clear evidence of the interest of hospitals in doing something about the education of their staff. I was a trustee of a hospital seven years ago which at that time no more would have considered putting out twenty-five thousand dollars a year plus benefits for a Director of Medical Education than anything. Four years later they did exactly that for the very reasons, the very things we are talking about. I repeat, the existence of this strong organization today is a result of the recognition on the part of the Boards of Trustees of hospitals that something has to be done about it, and it represents a tremendous investment on the part of trustees of hospitals.

DR. NUNEMAKER: I could clarify one thing I said about the AMA position. The House of Delegates did act, and it did include universities exerting more leadership and developing better material, etc. So, they did recognize the responsibility of universities, but it did not take it to be acted upon.

DR. STEARNS: The takeover is not exactly a cooperative arrangement.

DR. ROBERT L. EVANS: There is one thing we have been talking about, the real world, and you can talk all you wish about physicians, global responsibilities and trends. The fact of the matter is -- to carry Jack's analogy one step further as we did a couple of years ago in one of our meetings -- the motivating force in our nation and this economy is cash, and there is no doubt at this point that the cash delivery is in terms of research and medical care and in terms of moving the university out into the community, and it is going to respond to this cash. I hope we can evaluate the response as it occurs.

DR. ANGELIDES: If you accept the premise that education does something, in this case to take care of patients, that education is a step towards accomplishing this goal, you cannot isolate continuing education. I think this argument as to whether the university should get involved or not is ridiculous. It obviously has to. You can't take the tail end -- continuing education -- and say we can solve these problems somehow or other. You have to start going back like Ariadne in the labyrinth, because of the educational interrelationships, and not stop until you are back to the public school system. I think we are making artificial distinctions and worrying about unreal pressures. It is apparent you cannot separate these elements.

CHAIRMAN HALL: We are starting off the afternoon with a discussion of the evaluation procedures as viewed by the American Academy of General Practice.

Carroll Witten will give the AAGP's point of view.

DR. WITTEN: The strength of the American Academy of General Practice has been only one thing, and that is its requirement for continuing medical education to maintain membership in the organization. We are the only national medical organization that does require readmission to membership by certification of having completed a number of post-graduate hours, namely, one hundred fifty, during a three-year period. This must be done in order for membership to be maintained in our organization, and it strengthens the requirement for reelection to membership.

This, I would recommend to all organizations, and I believe that some day many other specialty groups -- as ours is a specialty group -- will adopt this posture.

I don't mean to say that this has worked one hundred per cent successfully, but, in general, it has been a success. Has the benefit been measurable as to those who have maintained their membership? We think yes, and there are some statistics that would prove our point, although, admittedly, it is a difficult thing to evaluate.

But I don't want to talk about our past so much as to tell you about what we plan for the future in order that you might understand what our hopes are.

I would tell you this. I was a prisoner of war in World War II, not as a doctor. I flew bombers, was shot down over Germany, and became somewhat of a troublemaker as a young Air Force officer. I often spent time in solitary.

One time I had been in solitary for three weeks, and after coming out I was sent to a maximum security prison in Nuremberg, the same prison where they held the War Crimes Trials.

There were four other men who were on this maximum security ward. We were all in our separate cells, but we were near one another. There was a Serbian general, a French resistance worker, a Russian soldier who I later found out was a corporal, and a German Jew who was a deaf mute. And I was there, as a young Air Force major.

None of us spoke the other man's language, and, of course, the German Jew, the deaf mute, didn't hear or speak at all. But in two weeks we learned to communicate. Within two weeks we were able to transfer information from one individual to another. In American medicine, they haven't been able to do this yet.

And that, to me, is the value of this meeting, because for the first time in any meeting that I have been in -- and God knows there are a number of them -- this is the first time I have seen free and frank discussion between the various medical specialties, and, perhaps, some recognition of the problems of the other individuals in other fields. Maybe we have begun to learn to communicate.

Now, the general practitioner has often felt like the one child of the Catholic couple that had twenty children. They baptized nineteen, and they kept one for control.

This, to us, is what most of you in some of the medical specialties have done to general practice for some few years. We are tired of being a control, and we propose we become the twentieth baptized child tonight at the Liaison Committee Meeting.

We have submitted our final application for the certifying board, which, in our opinion, will bring about quality examination of the candidates, quality training programs, quality individuals who enter the field, and produce a product for the purposes of meeting the needs of the American people. That is, a family physician to whom they can turn for their primary medical needs.

We propose these points: A three-year training program after graduation from medical school designed to produce family physicians; a three-year training program that will encompass the essentials that were just approved by the House of Delegates of the American Medical Association after being submitted by the Council on Medical Education this past December.

We propose that at the end of this three-year training program, that the individuals will be tested by a quality examination prepared in conjunction with the National Board of Medical Examiners in Philadelphia. We have been working with them now for almost two and one-half years, and we have the examination ready to go. This examination is two full days in length. There are six hours of testing on each day.

It will have six hours of testing, primarily that most identified with Part II of the National Board type of examination questions, the multiple choice type. I might add that we don't get into the questions that we think are absolutely superfluous to the practice of medicine.

We get into primary practicing management problems dealing with patients and how one reaches certain conclusions and what conclusions one does reach. We also have deliberately avoided some of the pitfalls we think occur in some examinations, such as trying to recall what appears to us to be superfluous information, such as esoteric normals of certain tests. In these more unusual tests, we present not only the tests, but the normals that are tested in that particular institution that the individual might be using.

In addition to this type of question, we are using the movie film. We have eight films that are part of the exam. These are short. These are silent. These are to test powers of observation of the individual, and they are most excellent.

We have, also, programmed testing questions, the type of question in practice management where one has a problem presented. He rates the answer right, wrong or equivocal, and moves on from that to another answer, and, thus, he has pluses and minuses charged to him and credited to him in order to derive the score.

These examination questions, and this lengthy comprehensive quality examination has been prepared by ten members of the American Academy of General Practice. Eight of us hold academic appointments, teaching at various schools, universities, in the country. Some of us hold multiple or duplicate appointments in several medical fields.

In addition, all of these ten men are in the private practice of medicine, and, therefore, have a feel for -- I heard the statement made several times today -- for the real people and the real doctors.

We are, if anything, the real doctors, although we seem often to be separated from reality.

CHAIRMAN HALL: Carroll, could I start out the questioning by asking the question, has the AAGP or the AAFP defined its universe in the sense that Rosinski or Elling defined universe for us?

DR. WITTEN: This is an extremely difficult thing to answer, Jack, because all of us think in different terms as to what we mean by this, but, yes, in some ways we think we have. This is the same type of question that has been posed to us for many years. In our travels around the country and the medical schools the dean or the professor of medicine would say, "Tell us what a family physician is, and we will be able to produce them, but until you can identify this, we can't."

Well, we worked on this for many years, and, as you know, after a six-year effort, we came up with what is called the "Core Content to Family Medicine." It is certainly not a perfect document, but it is, most assuredly, a step forward. It is one, I might add, that might be attempted by other medical specialties to clearly identify their universe as well as we have tried ours.

DR. ROSINSKI: How did you decide on particular techniques of evaluation?

DR. WITTEN: Although eight of the ten of us have university appointments and have participated, of course, in designing some type of examinations for students, we were all rank amateurs. We leaned heavily upon the National Board of Medical Examiners for their advice, and they have been most cooperative.

Their people are experts. We listened to them, we read the books, we studied. We think we have learned our lessons. We went through several hours of heavy and hot discussions, and, finally, we came to some rough outlines. From these outlines, we have been able to decide the type of examination question that would adequately meet our needs. It sort of has been trial and error.

We have, incidentally, had an opportunity to show this exam to representatives of the American Board of Surgery, of the American Board of Psychiatry and Neurology, American Board of Pediatrics, American Board of Internal Medicine, and in each instance, these men have all expressed to us that they believe it to be a quality examination.

DR. GREGORY: At the outset, you identified one of the strengths of the American Academy of General Practice, and that was the requirement that its members produce evidence of continuing education before they could be reelected at the end of a three-year period. Do you propose to abandon this requirement for readmission?

DR. WITTEN: No, sir. We do not plan to abandon it. We plan to continue it and, perhaps, to strengthen it in a way I will mention in just a minute. We plan to continue it by a requirement in this new Board of recertification, one that I know raises some eyebrows, but one that you have heard us propose before and others have proposed before us.

We have in our final application a definite statement that we intend to reexamine and recertify on a six-year basis. This would be the same as two, three-year memberships in the American Academy of General Practice, and the requirements for reexamination would be maintenance of the same three hundred hours of acceptable postgraduate study during a six-year period in order to be reexamined.

There is one other proposal, and that is one, incidentally, I would offer to the Board of Surgery and the American College of Physicians and others who are in the process of thinking about setting up some self-evaluation examinations.

I think the time has come when voluntary membership in an organization such as ours and the American College of Surgeons and others should require some voluntary self-evaluation examinations in order to maintain membership. In other words, I think the College of Physicians is right in what Hugh said about the way they have done their examination. I think it is fine to keep it confidential. I think it is fine for it to be done exactly as it is except for one thing. I think they should require that it be done by their members in order to maintain membership in the American College of Physicians and done every five years or six years or three years, whatever period they decide. This is the way, in my opinion, we will keep other people from setting up recertification requirements for us which will actually be relicensure requirements.

DR. FREYMANN: Carroll, first of all, I would like to congratulate the Academy, as I have on other occasions, for the courage in taking the stand on recertification, but I am surprised you would still continue the requirement to show so many hours of postgraduate education, because now this is going on the assumption that your examination really tests. What difference does it make if a man puts in a thousand hours or no demonstrable hours?

DR. WITTEN: I think that there is a lot of validity to doing away with the mandatory hundred and fifty hours once the recertification examination has been instituted, but until this transition period is over, I believe we must maintain the American Academy of General Practice as an entity.

DR. FREYMANN: Perhaps I misunderstood you. Once your recertification exam gets going, you probably will abandon that arbitrary requirement.

DR. WITTEN: I believe we will abandon it for those individuals who have their certification as members of the American Board of Family Practice. I do not believe it will be abandoned for those who do not take the certification examinations.

DR. PERKINS: Dr. Witten, will you tell us briefly what are your criteria? What will be the qualifying criteria for admission to the Board examination?

DR. WITTEN: We anticipate there are two categories of people eligible to take the examination. We set those up this way. One category are what we call the residency eligible candidates. These are individuals who have completed a three-year training program which has been approved by the Council on Medical Education of the AMA in the field of family practice or general practice in the past or can be interpreted to have been approved at that time by the Council. We don't make this interpretation. They will have completed, then, a residency program.

The other group of candidates are those who have been in practice or who have taught in medical schools or, I might add, taught any other place actively in the medical profession, which would cover the teaching hospitals that do not have university affiliation. They must have taught actively for a period of six years or been in active practice for six years and have maintained the membership requirements for the American Academy of General Practice, and have met, then, the three hundred hour requirement.

I would point out here that a man does not have to be a member of the American Academy of General Practice, but he must show evidence that he has had this three hundred hours of postgraduate training. He does not have to be a member of the American Academy of General Practice in order to be examined.

DR. ROSINSKI: Carroll, I am a little confused yet. If I interpret you correctly, are you going to have two parallel groups, then, really -- the Academy and the Board?

DR. WITTEN: Yes, just like the American College of Surgeons and the American Board of Surgery. Just like the American College of Physicians and the American Board of Internal Medicine.

DR. ROSINSKI: Do you see any difficulty with two different names?

DR. WITTEN: I think there will be initially. I think that, however, just as today the quality standards of the American College of Surgeons is dependent upon the American Board of Surgery, I think that the American Academy of General Practice, which has been the only leader in general practice, will be elevated accordingly as the

American Board of Family Practice is established. I think there has to be one political organization and one educational, qualifying, certifying organization.

DR. FREYMANN: No grandfather clauses?

DR. WITTEN: No grandfather clauses. I am glad you mentioned that.

CHAIRMAN HALL: You have a very outstanding opportunity of introducing an in-service evaluation procedure now as the new requirements of the family practice programs are being accepted. Is this going to be followed up on?

DR. WITTEN: Yes, Jack. We have given serious consideration to this. As a matter of fact, I have about a seven-page proposal, that I am going to present to our Board of Directors, which calls for the establishment of these in-service examinations. I am confident it will be bought by the American Academy of General Practice. This will be a requirement throughout the training programs.

CHAIRMAN HALL: What is it that has made this group flexible enough to explore new ways in evaluation for continuing education and in graduate education and development?

DR. WITTEN: When you are the only one out of twenty that hasn't been baptized, when you have been kept for control, maybe, it was the best thing that ever happened to us, because it caused us to be quite introspective. It has caused us to decide that the successful mechanisms that have been used by other specialties and certifying board were not enough for us, because we never had been involved in quality educational programs, and, therefore, we had to start off at a different -- mind you, I didn't say "higher" -- we had to start off at a different level, one that could be understood by people. They could see by it that we mean business, and I think self-defense is the real reason that we have done these things.

CHAIRMAN HALL: The next discussant will be Dr. Howard, representing the Council of the AMA.

DR. RUTLEDGE HOWARD: We are in AMA really a confederation of the other societies. Without them we wouldn't exist, and, therefore, we do need to take from the others. I feel that the specialty boards, the individuals in hospital medical education represented by your own organization here, and the government thrusts which are pushing all of us and making us respond are going to make continuing education a much bigger thing. As others wiser in the field than I have said, it may make continuing education the biggest educational effort in medicine, in terms of pupil numbers, faculty numbers and individual programs.

We have three basic things going on in AMA in the continuing education field. We are in a voluntary accreditation system for institutions delivering continuing education to physicians. We hope that will broaden to the other allied health professions. We have thirty-nine institutions now accredited -- if you count the first efforts of pilot test programs -- thirty-nine including those pilot test ones which include about fifty-five per cent of the courses given in continuing education in this country. We are hopeful that we can combine thoughts, and, possibly, forces and effort with the Canadian side in that accreditation system and obtain as well as give information in this bipartisan effort.

We are also in the position of being a coordinating agency. Very little, I feel, has been done in this respect by AMA. But we hope to bring various groups together for interchange of continuing education.

In the coordinating effort, the AMA, to me, when I was in practice, didn't represent very much. I got the first week in August issue of JAMA, saw dozens of pages of courses listed, put it in the pile with the rest of the journals. I said I would read it next week. I did pick courses from other methods, from other informational sources, and, then, checked back and found those courses were, indeed, listed by JAMA, and if I have only used it, I would have been helped more.

We are trying not just to help coordinate continuing education by this course listing in the Journal of the AMA, but, also, by bringing together forums -- in the most recent instance, state medical associations who are interested in the field. There has been lethargy in our component constituents which we hope to correct or, at least, motivate into better channels. We also hope with the new decision of the House of Delegates approving the final details of what we call the "recognition of worth" for physicians who participate in continuing education, to create a little bit of motivation for the individual doctor.

This is a voluntary effort to give credit to physicians who do participate in programs which very much parallels the Academy of General Practice system.

We have admired that system as physicians whether we are in the AAGP or not. And from the AAGP system the AMA has borrowed much and patterned our system of one hundred fifty hours every three years giving recognition to the participating physicians.

Beyond that I don't see much. I am too close to it at the end of my first year to see the forest because I am still looking at the individual trees.

DR. MIXTER: How long have we been publishing those lists?

DR. HOWARD: I am not sure, George, I think it has been about four or five years that I can recall seeing them. We now have nineteen hundred and thirty-six courses.

We are hoping to improve that listing and to get many more institutions who now give courses to want to be in that listing if our recognition award to the physician is to mean anything.

We hope that recertification will not be a problem, but we hope that the umbrella effect of the AMA recognition award's program will take the place of actual recertification.

I was very interested to hear Dr. Witten's statement that there will be recertification for the Board men in the new, we hope, Board of Family Practice.

DR. MAX MICHAEL: Recognition, is this a carrot to beat off the stick?

DR. HOWARD: It is the lump of sugar, right.

We expect something will come out of this. Not necessarily recognition or certification for one hundred fifty hours, but, probably, enforcement of just what Carroll said, a self-assessment for every physician in specialties and in general practice. That will probably be the eventual shape and pattern of things. Whether it is in my lifetime, I don't know.

DR. WINSTON MILLER: Have they planned any kind of continuing education based on any kind of performance testing?

DR. HOWARD: You mean programming it ourselves?

DR. WINSTON MILLER: Or improving it or encouraging it to develop the concept of education based on performance?

CHAIRMAN HALL: What do you mean "performance," Winn?

DR. WINSTON MILLER: Professional performance. I mean the quality -- if you like to use the term "quality" of medical care or the deficits of knowledge at the level of application.

DR. HOWARD: Individually, yes. As an organization, I haven't heard any policy statement on it, but individually I have never heard anyone say he is against it. It is almost an assumption at staff level and in committee and in council, that this is a goal.

Now, the methodology, whether it will have a self-assessment method or not, I don't know, but we are certainly for it.

DR. MIXTER: For reasons of very practical nature, we haven't mounted programs such as Rut is engaged in now, because we haven't had the manpower, we haven't had the money. It is just that simple.

We have thought about it at the staff level. It has been talked about by the Council and people have tried to institute an evaluation process, and all of those who have tried it have been defeated. We don't have any good yardsticks at the moment. They all turn out to be rubber yardsticks, you know, and for the Council to adopt a straightforward goal would infer that we knew how to get there, and, thus far, we don't.

Does that, more or less, answer your question?

DR. WINSTON MILLER: Yes, except I think that the force bringing about evaluation of continuing education -- based on appraisal of need -- could be implemented even by statements that you could not do anything about it yet but you hope that somebody will do it soon because it is of vital importance.

DR. HOWARD: Relating to this, they did spend about a quarter of a million dollars on picking out a pilot area of Utah, and studying it with a hope that we might expand it into the different health problems to see what improvement in health care delivery for each given problem can occur, by first establishing the needs in the area of each problem.

We have been in touch with the R. M. P. with this questionnaire of various medical programs they have put out, trying to assess needs, first, and, then, set up objectives which can be measured as an accomplishment after they have tried to do something about them.

DR. WINSTON MILLER: Another question. Have you considered some kind of endeavor to employ behavioral scientists' expertise to define the roles of our now twenty different kinds of doctors?

DR. HOWARD: We have recently talked with a man interested in behavioral sciences, and I think, fairly conversant with the language of them, trying to quantify and quantitate some things, but not with regard to a single specialty.

DR. MIXTER: It is kind of like fighting a brush fire. The various boards and specialties overlap. You can take the lower jaw, for example, and there are five involved. They all think it is their own province, and to a certain extent, it is. We fight these brush fires by pouring a little water on here and there and manage to keep them in fairly good relationship to one another. The Council and the Review Committees that represent it are constantly attempting to define areas, but there is no single coordinated effort.

One of the things that we are hoping will develop out of the plans for a super Commission on Medical Education, if we can ever get the various political overtones to die down, would be just exactly this -- to define specialty roles. This would be one of the provinces of such a group. It is a very difficult problem to state clearly now, because there are so many different plans, so many different sides for this supercommission.

This is all very much in the works right now. There is a lot of jockeying, and, maybe, in-fighting, but the thing is going to come about. What form it will take, and how it will be paid for I don't believe we know, but we have recognized [illegible] need for it.

DR. GEORGE MILLER: Dr. Howard, for a long time universities have been protesting, with increasing vigor, the imposition of external standards upon what they are to be responsible for. I wonder what it is that leads universities now, particularly in view of the talk of their responsibility for graduate education, voluntarily to seek the embrace of another accrediting agency, to say that what they are doing in continuing education is or is not acceptable.

DR. HOWARD: I don't know what motivates the university or the medical school, but I feel a lot of it is public pressure. I feel that the Manpower Commission Report in November of '67 might have given some thrust.

DR. GEORGE MILLER: So, we are saying on the one hand that the university must respond to public pressure for accreditation, and on the other hand that they must assume individual and independent responsibility for developing programs under their own jurisdiction for internship and residency.

DR. HOWARD: Yes, I think the medical school is being asked to take on a lot more than it ever expected to even as recently as five years ago. As I visit various medical schools with or without university connection, I get the feeling that the medical schools at the moment are just giving lip service to continuing education, in many instances. They are doing something, but the greater noise we hear is more lip service than it is actual accomplishment.

In graduate education I feel the effort is a little older, but I think they are still groaning under the load and the cost. I see most of the university and medical schools and catalogues aimed strictly at undergraduates, and thinking it is still the old goal of undergraduate education.

I don't know what is forcing them in, but I think it is public pressure. I think it is government, representing the public, and I think it is young students. I think it is a snowball.

DR. GEORGE MILLER: Almost seems as though they are letting themselves in for more pain if they are trying to get away from the external accreditation.

DR. WITTEN: I am a little bit concerned to hear that consideration is being given to the establishment of this supercommission. Not that one might not be needed, but this seems to be our problem in medicine. As the old saying goes, "You get two doctors together, they will form three organizations so they can all be officers."

This is what the AAMC has done in its establishment of the four Councils. This is what the AMA does in its establishment of councils, some under the House of Delegates, some under the Board of Trustees. It is what the American Academy of General Practice does in its Commission and its Committee when we set up a new one ostensibly for a new job.

If we think we are going to solve these problems by establishing another commission, a supercommission, which has no authority over the Council on Medical Education, or over the AAMC, or over the specialty boards, or over the Advisory Board for Medical Specialties -- if we think we are going to do it by setting up another organization instead of getting an identification of the jobs of the ones that we have and getting a coordinating effort between them, then, we are fooling ourselves again. That, to me, is what is wrong with the Millis Commission recommendation, as it is being approached by the AMA and by some of the rest of us in medicine.

We look at it as an opportunity to smooth things over for the moment, but the Millis Commission calls for an entirely different thing. It called for one body which will supersede the Advisory Board, the Council on Medical Education and all of the certifying boards in this country. This might be exactly what is needed, but it cannot be approached by merely setting it up on paper.

DR. GREGORY: I was thinking about the emergence of postgraduate education as a university responsibility. With the revision of curricula in many schools -- at the urging of the AAMC -- a good many of the specialties are finding themselves literally squeezed out of the curriculum, so far as time is concerned. And as they are squeezed they are told, "This is the kind of thing that ought to be done in the post-graduate period of training, not in the hard core of either clinical or basic science."

Maybe, therefore, they will simply translocate the student one notch up the scale and come into the picture of postgraduate education of specialties almost by default.

DR. BROWN: I have been concerned ever since the inception of this accreditation program for continuing education by the AMA. By implication it is suggesting that the programs that aren't inspected and accredited might not be acceptable. It would be a poor choice for anyone to spend any time and effort in other kinds of things.

I am thinking of the things we have done at our own hospital for the last four years -- I really don't know what to call them. They certainly are not education by the usual standards, but we have made some rather astounding changes, I think, in what doctors do in managing patients. But I can't imagine my going to the AMA and saying we want to accredit our "thing."

Our audit program, I guess, is sort of what we are talking about. To a certain extent other people are thinking about moving into this area -- survey of quality care and measure to see if physician behavior has changed to meet these needs and improving patient care.

I am afraid a lot of the people I have talked to have said, "Well, I can't imagine that being an accredited kind of thing, whatever we call it.

They will say, "But, gee, there is a course down the road at the university that is accredited. That is where we will spend our time."

Now, I think we have got this problem presently well-solved in our own hospital, but I am concerned about a lot of other hospitals that might, hopefully, launch the same kind of program we have.

DR. HOWARD: Clem, I am glad you brought that up, because being wet behind the ears in the AMA and fairly seasoned in the solo family practice, I came into AMA with almost a lone voice.

George has been in practice. Very few other professional people in the AMA staff have been in private practice. I feel that many things are continuing education, and at the moment we are concerning ourselves with what we can label in many different ways.

I don't think formal courses are necessarily the big effort in the continuing education of a physician. I feel the average good doctor, even in a specialty, can get an awful lot of refreshment of the old and adding of the new knowledge and skills talking with just one good colleague, and another one next week, and another one the following week. Maybe not in his own institution because you tend to get inbred, but talking, especially, to the younger men who have been well-trained, I feel accreditation implies formal courses. My natural feeling is that continuing education accreditation should include many things that are less than formal courses -- less in stature, but not less in importance.

My feeling, too, is that most doctors ask for consultations for genuine help. They are not what we call "consolation consultations" as the patient nears St. Peter. I think that serving on record review committees appears compulsory, but in most hospitals, even little ones, you can or cannot serve, as you wish.

I do feel a lot of these things are continuing education, not the least of which is the time doctors spend hourwise in reading. Somehow, as Bill Ruhe says, you can't get your hands on these things. Well, maybe that is because nobody tried hard enough in our former organizations. The big danger, to me, of a formal organization is we don't recognize the nuts and bolts of what goes on out in the practical world.

The world is a different place, and the practical problems you meet in the world are that things aren't done the same in New York as they are in New England or in the South or the West. You have to adapt to each area, and you can't give them a rigid set of standards.

I think Bill Ruhe is very aware of this. We don't want to lock the doctor in a single system.

DR. BROWN: I am still very concerned about what we have accredited. We are hurting others and giving a blessing to those kinds of learning experiences that we know from study after study are less likely to effect behavioral change in physicians in improving patient care. I think it is extremely unfortunate.

DR. HOWARD: If you can give feed-in to Bill Ruhe, I think he will appreciate it because it will get to your Advisory Committee, and we need more feed-in.

DR. MICHAEL: I will tell you what I was nodding my head about. I have just come back from a so-called course at a non-university affiliated hospital. They had a so-called "postgraduate" course. By all standards it was a magnificent success. Eight hundred fifty people deducted it from their income tax. But when we went to the institution and tried to look into some of these things, to stimulate some thought on what continuing education was, we were hitting a stone wall. "This is not what you are here for. You are here to put an asterisk by this course that is listed in the Journal."

So far as I am concerned, we didn't accomplish a thing. Sure it is a success. There were eight hundred fifty people.

DR. WINSTON MILLER: The Utilization Committee should be a tool for continuing education. It is manipulated by the big stick not by the carrots. Now, you are beginning to pass out carrots. You really ought to pass out carrots for the kind of programs that have the greatest impetus for the performance of medicine.

DR. EVANS: You are still only going halfway.

DR. MICHAEL: Not even halfway.

DR. EVANS: Because the real guts of continuing education is what a physician does every day in the hospital that he works in, and how he and his colleagues review what they all do together, how they run departmental meetings, how they run audits, how they interact with the Board and administration to maintain standards of care. These things are the guts of continuing education.

The courses are nice. They are like icing on a cake. They attract the flies, and they taste pretty, but they aren't much good if there isn't some cake underneath them that is worth eating. This is the one thing that we all pass by, and this brings one group into this which isn't even scheduled to talk here today -- the Joint Commission on Accreditation of Hospitals. It seems to me that they are involved more deeply, probably, in accrediting continuing education or could be more deeply involved in it than, virtually, any other group, because regardless of how many courses you run, you can run conferences until the cows come home, the place where this guy is really going to learn is where he earns his money, makes his bed and eats his food every day, and this is in his community hospital.

DR. STEARNS: What makes you think the AMA, this Council -- Bill Ruhe's accrediting people -- are not going to give credit for the kinds of thing you are talking about? I rather suspect they will. When they talked to us, they were most interested in this kind of activity in community hospitals, and I think they may very well approve such kinds of programs.

DR. EVANS: I din't say they wouldn't, but they haven't.

DR. HOWARD: May I make one final comment here? In setting up the standards to what we will give point credit for in continuing education, I had to write up the so-called essentials or description of what we would give credit to, and I included all of the things Bob and Clem and Winston are thinking of, because, to me, this is the nuts and bolts of continuing education.

You do it on the job, with your own patients, in your own hospital, and, to me it is the heart of continuing education. I would like to see AMA give credit for the very things mentioned.

CHAIRMAN HALL: I think what you are saying is we need to define the universe of continuing education in particular, and the evaluation procedures now accepted as the defined universe can be extended.

Dr. Elliott is here to represent the American Hospital Association's concepts of the status of education program evaluations.

DR. FREDERICK N. ELLIOTT: As hospitals are beginning to identify part of their purpose as being discreetly and distinctly educational, and since they are developing an area of justification which has to do with education considered distinct to some extent from their primary service function, they have an obligation to be concerned with such topics as this.

Certainly the evaluation of their own commitments to education is essential because it is parallel with the auditing procedure that involves the expenditure of money or the utilization of other resources. Therefore, it is morally and operationally a part and parcel of the hospital's educational program, and to that extent it is essential.

However, I was very much pleased to hear Dr. Rosinski say last night -- talking about the universe of education -- that if there is any institution in our society today which is undergoing a transformation, partly voluntary and partly involuntary, it is certainly the hospital. In evaluating any type of activity, I assume that means measuring the achievement against the goal, and since the goals of the hospital are changing and are not too clearly comprehended in a contemporary way, let alone as far as the future is concerned, evaluation here may have another purpose. Rather than evaluation being contemporary with the effort, it may be that evaluation can be used as a yardstick to project goals and to indicate a change in our effort or a change in the desired product.

Now, we have both situations existing at the present time in hospitals. The hospital education effort is presumably directed towards helping the hospital to meet its immediate obligation for high quality service or medical care; and ostensibly to enable it to respond flexibly to changes in circumstances, to become the kind of institution which it is going to need to be in the future.

Many of us feel that the hospital of the future will become a very different type of organization, representing a concentration of the community's health care resources, defining health in terms that are both social and psychological as well as physical, and that it will be concerned with education, prophylaxis, diagnosis, treatment of acute conditions, convalescent care and services directed towards rehabilitation.

We have two problems. One is the contemporary problem of merely delivering medical care. The present program of delivering medical care is bound inevitably to financial considerations. Wants are being changed into demands in the economic sense.

We are being confronted with the impossibility of achieving a maximum potential because financially it is impossible to do since we are going to create demands which will forever outstrip our resources in the treatment of the illness. This means that we are going to have to redirect ourselves to becoming health care oriented, prophylactically oriented, educationally oriented and we are going to have to remove the morbidity that results from the misuse of drugs, alcohol, automobiles and money.

If those are the two things, we have two problems. Evaluation in the hospital can only be effective in determining whether or not what we are producing is helping us to do a better job. So, it is extremely pragmatic and extremely unscientific, and it consists in adducing the evidence of better patient care -- whether it is a reduction in unfortunate incidents or more rapid recoveries or more accurate diagnosis or more effective treatment.

Now, we have some very great deficiencies which are apparent to us even there. We lack numbers of these people, and they lack competence. In those simple areas we have three components of the educational process that we have to consider.

In the educational process we have information, intellectual content, we have a skill content. Finally we have the intellectual content and the skill content coordinated with the underlying emotional constitution or attitude of the individual in producing judgments.

Now, the value of a judgment is the extent to which it is appropriate to the stimulus that creates it, and we know a lot now about the information we should give, and we know a certain amount about the skills we should impart. We know very little about what we can do about the defects in judgment which result from the multiplication of knowledge and skill by an imperfect personality.

So, at the beginning of the educational process, we must know what the product is that we want -- whether we want to turn out a pilot or a football player who is basically a killer or a man who is going to become a healer. We have an obligation to analyze this individual the best we can. His acceptance into medical school or into the healing society is a crucial step in which we may have committed ourselves to failure. When we make that acceptance, when we accept "A's" or an IQ or a demonstration of a physical skill as primary evidence of the ability to exercise good judgment, we are omitting what is nine-tenths of the proposition, and that is what kind of a person is this person, what are his neuroses, and how will they motivate him.

So, we need to study that, and we need to do it much better than we are presently doing it. Now, how do we influence these things? How can you change attitudes? We can talk about supplication or exhortation or rewards or punishment, but we have got very little scientific evidence that gives us a predictable result from changes in the environment, or from other pressures, psychological or social, on the individual which change his behavior patterns. In other words, how does he use his knowledge and skill to respond to a situation appropriately.

Now, this appears to be true, because we are beset with a tremendous deficit of professional judgment in our hospitals, even in the narrow concept of medical care.

As we see the hospital becoming a different type of an agency, we can go back and take one more look. It needs a new measure of intellectual input in the areas of social mechanics, social anthropology, psychology, the mechanisms of relationships. We are finding already that there is a serious intellectual deficit in the understanding of people who are trained in a vocation as to how they and their vocation relate to other people, and what their real function in society is. All of our medical students -- and certainly in my generation -- were completely deprived of this. We were sent out strictly from hunger. We didn't understand the hospital as an authoritarian or social institution. We didn't understand our place in society, and we didn't really understand what we were addressing ourselves to. Fortunately, we got by, and we achieved some personal satisfactions. The problem that threatens the hospital as an organic entity today is the fact that the people who should be the "cream" of our intellectual crop are babes in arms in understanding the society in which they function, their relationship to other individuals, and their relationship to the organization. So, there is where we need more input intellectually. We know we need more training and less education for some people. There is a great deficit of skills, including those of communication between the hospital and the healer and his patients. We need a reorientation towards health from medicine.

So, if we are going to evaluate we must first of all determine what the standard of values is to be. Today it is contemporary medical practice. Tomorrow it is a social concept of health, and we must measure the products against those. Knowledge and skills are by far the lesser of three components. We must measure the third component -- which really underlies judgment -- the emotional bias of the individual. We must seek ways in which we can change his behavior in a significant way.

There is a lot that we need to learn from you, and there is a lot that we are looking for you to do, and except for being concerned and grateful, we have no further competence. We have no competence except our need.

DR. HOWARD: Have you just really said, then, that what we need more of in training health service individuals is what are now called "behavioral" sciences? That is, experience and knowledge and skill in those fields which formerly, strong family ties gave the young individual who wanted to be a doctor or nurse? Family ties are much weaker now with cars and television sets and schools now taking over the child while not admitting the in loco parentis theory.

DR. ELLIOTT: I think there is need for an intellectual input in social and behavioral sciences for those going into the healing art. I think there needs to be individual application of the skills psychology and psychiatry and social science for the individual, to teach him to understand himself, so he can be motivated to modify his behavior.

DR. STEARNS: I wonder if I am not hearing something else come through here -- the social concept of health versus the standard approach to medical care as we now know it. You said the knowledge and the skills may be the least important of three items. What you are really talking about is a better system of medical care in which some people who have the total socio-economic picture in mind, will be able to send patients to some highly trained, but less knowledgeable people. Is this the total system that you are talking about?

DR. ELLIOTT: I am, because our hospitals are increasingly suffering from a deficit of trained people, not necessarily the highly intellectual pursuits. As our number of personnel go up from one and one-half to now nearly three per patient, there is actually less contact with the patient in both physical terms and psychological terms. More and more of our patients, including those in the expensive private room, are suffering from what almost amounts to sensory deprivation.

DR. McGUINNESS: May I explain that? I was a patient in our local hospital on four occasions. I learned more about that hospital in those four admissions than I did in seven years sitting on the Board of Trustees. In a one-week hospitalization, I had twenty-four different nurses taking care of me. I kept a roster of all of these twenty-four girls, and I tried to remember the names of a couple of them. I think this is one of the kinds of things that Fred is talking about. I felt deprived of somebody in there whom I could identify with other than my "doc" whom I saw briefly in the morning and in the evening. It was quite a revealing experience.

DR. FREYMANN: Fred, as usual, you open up new vistas to me. In talking about investigating the basic personality, the emotional bias -- I think is the way you put it -- of the student, you made me think of the last couple of articles by Dan Funkerstein, analyzing the students admitted to three schools -- Harvard, Colorado and another one. That was one of the most dynamic documents I have ever read. If you recall, he breaks them down into the student psychiatrist, the student scientist, and says there is no room left for a student physician.

DR. ELLIOTT: And that is the bias of your selection.

CHAIRMAN HALL: What you are saying is we ought to have our evaluation procedure moved up in time.

DR. ELLIOTT: Exactly.

DR. FREYMANN: Somebody said you should go back to the elementary school.

DR. ELLIOTT: You have to evaluate the raw material before you can even start to evaluate the product.

DR. STEARNS: Is it possible to put an input into that raw material once you have got them in there. It seems to me that medical students and interns and residents need to be confronted by the kind of doctor who is acquainted with the problems you have: not having the same nurse; having one who does know how to hold your hand; who does know how to shunt you to the proper kinds of recreational and peace-of-mind kind of situations. It is virtually impossible to get students, interns and residents to accept a visiting physician whose job is to teach them what I think you have put in its proper place. I am very hesitant about pushing this too far, when you talk about the knowledge and skills kind of thing, because this man is not the "red-hot" internist, the "red-hot" endocrinologist, the "red-hot" this or that.

Now, if this is going to be meaningful, it has got to have its input in the medical school. The medical school must get the student to accept that kind of teaching as part of his education. Otherwise, they discard it. They just won't accept this kind of thing.

DR. ELLIOTT: Well, Dr. Miller the other night said he thought that attitudes could be changed. He used the idea of example, and I am sure that has a beneficial effect on many people. Further, we know that systems of rewards and punishment do have a dynamic effect on anybody's attitude. Unfortunately, we are so unscientific in this area this time. We know it will have an effect, but we don't know what the effect will be. Punishing of an individual -- sending him to jail -- may reform him, and sometimes does, but it will frequently do the opposite. Perplexed parents are saying, "I was too strict," and they are talking to somebody who says, "I was too permissive with mine," and they have both got the same kind of a problem. I think we are in the infancy of being scientific toward such emotional things. Actually, we have an emotional reaction to students which disqualifies us from functioning. We like our students, or we dislike them, and we don't even analyze that.

DR. MIXTER: I think one of my most exciting and memorable experiences since I have been working on the staff of the AMA was the accreditation visit to the new medical school in New Mexico. They are producing a breed of doctor that you would be astonished at.

What they are turning out is boys and girls who are extremely conscious of their social context, of the resources of the community, their obligation to the community. They are taught to be communicators.

CHAIRMAN HALL: Where did you learn your social awareness?

DR. MIXTER: I got it beaten in to me.

CHAIRMAN HALL: As well as your skills and practice of medicine.

DR. MIXTER: Just got beaten in to me.

CHAIRMAN HALL: Where?

DR. MIXTER: Well, family primarily.

CHAIRMAN HALL: You learned it in the home environment, and think it was built in before you went to medical school?

DR. MIXTER: I don't know. All I learned in medical school was a lot of language, really.

DR. ROSINSKI: You learned social awareness in spite of medical school?

DR. MIXTER: Surely.

DR. ELLIOTT: I have a feeling that the people who acquire social awareness acquire it elsewhere, rather than in the formal educational process.

DR. MIXTER: I am sure it was true of those of us who acquired any.

DR. ELLIOTT: The responsibility of a hospital is to be a humane institution in which the effect of a total environment, as well as the educational process is to produce the product we want -- the humane physician. It may be that later we will want to raise executioners who will cut down on the population or something. So, you can't really evaluate until you have a standard of values.

Our present standard of values indicates we need more physicians who are healers.

DR. MIXTER: It is certainly true the only way to evaluate a hospital is go be sick in it.

DR. CRAIG E. BOOHER: Until the George Millers and the Ed Rosinskis in this world come up with a little more sensitive evaluating tool, I wonder whether maybe we are stuck with the horrible conclusion that there is probably worse general medicine being practiced by general surgeons than surgery being practiced by general practitioners.

DR. WITTEN: I was very interested this morning in hearing Bob Moore make a statement about the lack of adverse effect upon surgical training programs by Titles 18 and 19. The American Hospital Association was one of the groups that warned those of us who were high on Title 18. You warned us that Medicare would destroy the training programs in hospitals.

DR. ELLIOTT: Yes.

DR. WITTEN: What does the American Hospital Association think now? Do you agree that there has been little or no adverse effect upon the training programs by Titles 18 and 19?

DR. ELLIOTT: Well, I can't answer that in any kind of quantitative terms. I don't know. I suspect there has been very little.

Also, I don't think the AHA warned that it would mean a destruction of the teaching program. I think it meant there would be a destruction of the existing methodology, which is quite a different matter. I believe that the removal of the medical indigent, as a passive care case on which to practice dissection and so forth, has been replaced by an activity in which teaching is conducted by people who have a commitment to teaching, including practitioners, and this is a tremendous upgrading, because it is no longer purely an economic base. It is on the basis of commitment. The removal of the indigent, threatens the supply of bodies, so to speak, but that in a thoroughly discredited system. It will be replaced by using people with dignity, with reverence, and with enthusiasm for good treatment in teaching. I don't think it can do anything but good.

DR. KING: You missed the opportunity to set up a balance and find out. So, your statements are really without observational fact or support in either instance.

DR. ELLIOTT: That's right. Just philosophy on my part. I don't know.

DR. EVANS: Is the AHA attempting to evaluate the role of the administrator as an influential individual in creating a patient-oriented care institution? In many of our institutions, this is a basic problem.

DR. ELLIOTT: This is the most crucial organizational question through which hospitals are now evolving. We have a triumverate. A Board of Trustees filled with altruistic things and ideas of fiduciary responsibility. The administrator, promoting development. And a profession fighting for what was relevant twenty years ago. Living together in a state of armed truce is not creating the kind of organization which is doing even what it should do today, let alone what it has got to do tomorrow.

Now, bringing about an organic unity is the most crucial thing that is going on.

Now, it is not going on in any particularly intelligent, predetermined way. It is going on as a result of a lot of strife and Brownian movement and negotiation but, hopefully, something that is organic and intelligent will come out of it.

DR. ANGELIDES: Don't you think, Fred, this has already been determined? The Darling case, I think, pins it to the Board of Trustees, regardless of what mechanism is subsequently held to carry it out. I was amazed to read the State of Michigan licensure statute regarding licensure of hospitals, which is a most lucid and detailed document as to where the responsibility lies. I think that has been determined.

DR. ELLIOTT: The Darling case has awakened a lot of boards to the area of their responsibility, and it has given a lot of mileage to people who want to push medical staffs around a little bit. As a matter of fact, in the Province of Ontario now, the new Hospitals Act puts the onus on the Chief of Staff of a hospital to displace an attending physician and throw him off the case if the Chief doesn't like the way the case is being handled.

Now, if that doesn't burden the profession with something it is not ready for yet! Don't interpret the law as reality. The law operates in an oscillating fashion, usually behind custom, sometimes embarrassingly ahead, but never where custom is. It is never contemporary.

Now, the Darling case gave great impetus to laying responsibility on the Boards, and it has been a healthy thing. But if it is accepted as dogma and quoted like the prohibition against the corporate practice of medicine -- which is becoming more irrelevant daily and will be as dead as the doctrine of charitable immunity in another ten years -- if this is quoted as written and as though it is going to control reality, we are making a big mistake.

DR. ANGELIDES: I was more amazed by what the State of Michigan has written into the law than the Darling Case. I think it is a much more lucid document and more comparable with the times.

DR. ELLIOTT: I think so.

CHAIRMAN HALL: We are speaking of evaluation processes -- evaluation of the end product, which relates back to staff privileges in the hospital; evaluation of the product in process, the graduate students; and, as you suggest, evaluation of the individual before he starts the processing. Can we look to the hospitals to generate the funds to do this?

DR. ELLIOTT: To the extent that hospitals generate the funds to undertake educational programs, I think they will accept evaluation procedures as part and parcel of those programs, to be apportioned appropriately.

You are up against another question now. To what extent is the hospital -- which derives its income from services to patients -- entitled to tax that income to subsidize another enterprise. Now, that other enterprise, to me, should justify itself on its own merits. If it is in the national interest, we know where the money should come from.

If you are as old-fashioned as I am, you think the individual should be motivated to provide his own improvement. There is hardly any hope of going back to that, but the point is, it is now getting to be almost a national scandal, because the hospitals that have good educational programs now are taxing their patients from four dollars to nine dollars a day for the benefit of the community at large and the hospitals at large. It just doesn't make any sense, and the treatment in those hospitals is not that much better.

DR. PERKINS: The reality of today is that the Darling Case has one hell of an impact.

DR. ELLIOTT: It sure has.

DR. PERKINS: And you cannot stand there and philosophize. There are hospitals and there are programs and there are staffs and there are administrators and there are lawyers, and they are paying attention to it today, and maybe you are right they will only pay attention to it for ten years, but what havoc they are going to raise in ten years.

DR. ELLIOTT: Nothing has happened in law in the last twenty-five years in the hospital field that has anything like the impact of the Darling Case.

DR. PERKINS: It is a reality of the workaday world to come back to what we are talking about, what is our universe. This is a bit of reality, and I don't think we can dispense with it in philosophic rhetoric.

DR. ELLIOTT: Your universe is the question of the responsibility of the hospital, corporately, for the competence of care. That is where it derives its mandate to be concerned with the evaluation of its educational product. So, it fits together in a positive way.

DR. HUSTED: The moment we talk about evaluation, we immediately jump into the formal educational structures. Immediately one starts talking about program, one starts talking about courses, one starts talking about medical schools.

Yet in no medical school system is there a course in attitudes or communications. The physician comes out of medical school with a certain set of attitudes that are developed somewhere. I submit they are learned. They are gathered from the experience that he has had throughout his training in medical school and internship and his residency, and I would encourage -- in fact, I would urge -- you when you are looking at evaluation, not only to concentrate on the formal, but take a tight look at the informal interactions. I have a sneaking suspicion that it is at these levels where attitudes and communications techniques are learned. And they are learned. They are not something that is just absorbed.

DR. ELLIOTT: Thank you for saying what I was trying to say. That puts it right on the line.

DR. EVANS: I think we are now forced to go one step beyond the Darling to a New Bedford decision which says, in effect, that not only must the physician be competent to practice at the level in the community in which he is working, he must now be competent to practice at the national level of competence. This puts the pressure for evaluation of output directly back onto the whole hospital organization.

DR. ELLIOTT: That is a change in the interpretation of negligence from what is locally acceptable to what is nationally acceptable.

DR. EVANS: That's right, and that, of course, obviates what has been the major defense of malpractice for fifty years.

DR. ELLIOTT: It is no longer any good.

DR. FREYMANN: That case hasn't been finally settled, has it?

DR. ELLIOTT: It will be. Though as we get the dispersion of knowledge in an ever-increasing rate, courts are not going to protect pockets of ignorance.

DR. ELLING: Would we know what the national level of competence was?

CHAIRMAN HALL: Our next speaker is Cecilia Conrath, Division of Regional Medical Programs, Department of Health, Education and Welfare, Washington, D.C.

MISS CECILIA CONRATH: The Regional Medical Programs are now three years old. We are going into our fourth year. Many of the activities which are being supported under Regional Medical Programs are in the area of continuing education. If we consider demonstrations of patient care included with continuing education activities, approximately seventy per cent of all of the support of Regional Medical Programs would be in the area of continuing education and training.

As many of you know, there are now twenty-seven of the fifty-five Regional Medical Programs that are operational.

As far as the kinds of programs and as far as the kinds of activities in continuing education, they go all over the waterfront.

As far as evaluation is concerned, we are beginning to see a few breakthroughs, and I would like to make reference at this point to an activity which the Division of Regional Medical Programs started, when Frank Husted was with us took on full force. Frank really deserves the credit for the three contracts we have at the present time. One with Dr. Miller, University of Illinois; one with Dr. Steve Abramson, University of Southern California, and a third with Ralph Ingersol at Ohio State. These are programs which address themselves to the shortage of manpower in the field of educational evaluation. These are training programs at the graduate level which will, hopefully, begin to make some inroads on attacking both the process of evaluation as well as the product of evaluation.

In the Division of Regional Medical Programs and individual Regional Medical Programs, we are interested in projects as well as total program evaluation. The decisions that will be made about March of 1970 when we come up for the extension of our legislation hopefully will be made with objective data. Those decisions will largely be made on hope and faith in the future as well as the confidence that what has taken place in the last few years has indeed contributed to the health care system in this country.

The mood of the country now is one of consolidation and digestion, according to the Washington Post, of the legislative program of the Kennedy-Johnson years. There are many hopeful signs for improvement of programming, because I think the mood now is definitely to look for accomplishments and importance, to look at what are the objectives. What do you really plan to accomplish with X amount of staff and X amount of money and X amount of materials?

We had a meeting about two weeks ago on an ad hoc basis to look at how you begin to assess a national program, and I mean national program only in the sense of a feedback to Congress on Public Law 89-239.

If we were a national program, it might be easier, but we are not a national program. We are fifty-five Regional Medical Programs, and decision-making at the regional level is, indeed, our strong point. We believe that we have to work with the fifty-five regions in order to begin to give the kind of feedback which is the intent of the legislation. The whole tenor of Congress is going to be one of much more conservative mood. In this connection we have taken a look at what is happening outside of medicine, and what is happening in the field of higher education in general, to begin to see if we can get some clues from what is happening in the field of adult education across the country.

There had recently been completed a survey of adult education which will come out about May of this year. This is a repeat of the 1962 study, when Francis Kepple first became Commissioner of Education and contracted with Boston University to do a survey for the first time across the federal establishment and across the voluntary sector to find out what is going on, and who is doing what, and where are the facilities, and what kind of manpower resources exist in the country to bring about a more meaningful educational system, responsive to adults in today's society.

I think that the recommendations of this particular survey which address themselves to what can be the federal government's policy in regard to continuing education, may have meaning for medicine as well as other fields.

This and some of the foment that is going on in the field of higher education has resulted in the creation Directors of Continuing Education at the provost level of universities. I think that we are beginning to see some of the reward system, not, perhaps, in the health sciences, but in other fields. This may be one of the signs that we need to keep in touch with and begin to use some of Dr. Elliott's observations about being in tune with what is happening to society in general.

DR. FREYMANN: Ceci, I am amazed how often recently agriculture gets brought into this.

MISS CONRATH: Yes. The movement in Connecticut if probably one of the best examples of this, where the general extension and the agriculture coop extension have merged, and they are now engaged in a most interesting "retooling" program of converting county agents -- who formerly were addressing themselves to problems of the rural population -- into urban agents. This innovation -- how do you convert from one field of activity into another field of activity, what is this conversion process, and how do you change the attitude and philosophies -- may be one which will give us some clues as to how to shortcut some of the problems that we have in training.

DR. HUSTED: To what extent are the Regional Medical Programs moving into medical care for the disadvantaged as a broadened area of activity?

MISS CONRATH: I think this is a hot problem in many regions. We are closer and closer in touch with the troubles of Regional Advisory Groups. I think it is at this level where programs for the disadvantaged either pass or don't pass.

I think we are going to see much more cooperative effort with OEO's Neighborhood Health Center Program. There are a couple of places in the country where we do have joint sponsorship, but we have not seen as much of this as I am told is actually going on. Many of these programs have not been able to build the back-up that the Regional Advisory Group feels is necessary, so they are returned for revision, and we don't see them, but there is more going on.

DR. HOWARD: Is Comprehensive Health Planning going to be a big health factor fairly soon in accomplishing this sort of goal?

MISS CONRATH: It already is, I think. In many regions there is a heavy overlap on advisory group membership, on committee membership, between Comprehensive Health Planning and Regional Advisory Groups. I think the hang-up in Comprehensive Health Planning has been the funding part.

We see this as a compatible and not a collision course. This is not to say it is one without struggles, but it tends to be complementary, and there are a few places in the country where this has worked out fairly well.

DR. HUSTED: Is it possible for the same advisory group, say, Regional Advisory Group, an advisory group in a region, to be advisory group to both organizations, to RMP and to 749?

MISS CONRATH: This has been tried with varying degrees of success, ranging from failure, where it just didn't work out, to places where there is heavy overlap. I am not sure there is a place where there is a hundred per cent.

DR. HUSTED: By "overlap" you mean the same people are serving on both?

MISS CONRATH: Some people are serving on both, and two separate, different missions. Some different membership, but a considerable amount of the same.

CHAIRMAN HALL: The legislative guidelines almost required different kinds, so it couldn't be superimposed.

DR. HUSTED: A different makeup, yes. I realize that, but I wanted to be sure.

CHAIRMAN HALL: Ceci, you have mentioned that Regional Medical Programs is providing an important resource -- trained people -- to use in the evaluation process. Will this resource be restrained? I presume it is just establishment of the educational resource that one needs to begin this kind of expertise. They will, then, determine their own course of action.

MISS CONRATH: Right. The people who complete the course select the positions which are most attractive to them. As it turns out, the majority have taken positions either with RMP or with RMP responsibilities. The Division does not make any requirements at all. The individual makes his own choice.

CHAIRMAN HALL: I still go back to my bias of the meeting here. I would hope that something will come from the urging of the specialty boards, the re-enforcement of the hospital settings and possibly with the hammer of the Joint Commission saying that these kinds of evaluation procedures are important as the continuum of the evaluation of education. For the student, we have him evaluated before he comes into our hospital; once in our hospital in a graduate program, he has an evaluative procedure; and as he continues to practice in our hospital, he undergoes evaluative procedure.

If we can get that kind of motivation, I think that we are going to make great strides in this process that will be very important, and the resource people are going to be a key. We can't make strides without the resource people.

To take us back a little bit more to the specifics of graduate education, we are going to now hear from the American Board of Obstetrics and Gynecology and Dr. David Danforth.

DR. DANFORTH: The American Board of Obstetrics and Gynecology is one of the oldest boards, and I do feel that I must emphasize this. The Board started to be organized in 1927 and was officially set up in 1930.

In recent years it has been composed of fifteen members. They have been three members each from the American College of Obstetrics and Gynecologists, from the American Gynecological Society, and from the American Association of Obstetricians and Gynecologists. In addition, there are three members at large, who are elected from former members of the Board. The members at large are elected each year. The other members of the Board serve for periods of six years.

One of the major concerns of the Board is in granting a certificate to individuals who have served in approved training programs and who have been examined and found in the opinion of the Board to be qualified as a specialist in obstetrics and gynecology.

The Board requirement with regard to training is three years divided equally between obstetrics and gynecology. Some programs are of four-year duration, the notion being that the training of the individual can be strengthened in his particular hospital by adding one year, which may be partly elective. It may include certain assigned programs, or it may be research.

The mechanisms that the Board uses for arriving at a conclusion regarding the abilities of the candidates are, first, a written examination, given at the conclusion of the residency period. Immediately the candidate completes his residency, he has a written examination of three hours' duration of the kind already mentioned -- the multiple choice and so on. If he passes that, he is qualified to take the oral examination eighteen months after he has passed the written. The oral examination is approximately one and one-half hours duration and is designed to assess not necessarily the facts that the candidate has amassed in the previous several years, but, rather, to test his judgment and his ability to use these facts that he has learned. I think, to all boards, the idea of an oral examination is an attempt to appraise an individual's judgment and his ability to solve problems.

Now, in addition to this particular kind of evaluation, rather recently our Board has addressed itself to the possibility of an in-training examination.

We have approached this rather slowly, and the objectives that we have had are essentially those that were outlined this morning by Dr. Gregory. We hope that this, first of all, will point out to the candidate himself what his learning is, how he is moving along in comparison to other men in different programs. We hope, also, that it may assist in evaluating the program.

I am a little more uncertain of this, however, because the kind of individual that goes into these programs is not at all uniform. Some so-called poor programs will produce many excellent, extremely competent physicians, whereas some of the best programs will produce men of much less competence. Consequently, I am not certain that this will be helpful in evaluating the program itself. Surely, it may assist us in finding areas of common fault in programs. That is, where certain subjects are repeatedly sluffed off as not being of importance. It could well be that this could alert us, at least, to the possibility of strengthening.

We have done very little with the notion of evaluation of the man who has been specialized. In our Board, we are extremely mindful of the challenge of the Millis Report, indicating the demand by the public for excellence in their physicians, and the admonition that we proceed as promptly as possible to try to evaluate just what kind of medical care they are delivering.

We have discussed this at considerable lengths, and, unfortunately, despite our best efforts, we have not been able to come up with any means of assessing the abilities of the group of practitioners on the national level.

Our conclusion up to now, at least, has been that such self-evaluation should be made, and there must be concerted effort to improve or surely to maintain the qualities of excellence in the various institutions, but this almost has got to be done, we have felt up to now, at least, on a local level.

From our vantage point, the two major needs at the moment are the elevation of standards of the individual training programs and the maintenance of the activities of the man who was certified as a specialist several years ago and may have begun to fall by the wayside. We have discussed the possibility of recertification, as Dr. Witten mentioned this morning. This is sort of in limbo. We haven't exactly rejected the idea, but we also haven't accepted it, and it is very difficult. The Board has been well-established. To suddenly announce to the people who have been granted a certificate with the understanding that this is going to be a one-shot affair, that you are now going to be certified or failed, to find out suddenly that this certification is in jeopardy, and he must go through this again, is rather a difficult problem. It also is a question as to whether this rightly concerns the American Boards or whether this, again, is a problem that should be dealt with at the local level.

DR. GEORGE MILLER: You questioned whether the oral examination can test judgments. I would phrase the question somewhat differently -- not whether it can, but whether it does. It is not the instrument alone that is important, but the way the instrument is used.

As an illustration, the American Board of Orthopaedic Surgery used the oral examination for the purpose of assessing candidates' skill in making professional judgments and solving problems. As a part of our study of the examination process four years ago, we did a careful observational analysis of what took place between examiners and candidates in one hundred forty half-hour examinations from which some generalizations could be developed. What we found was that for the most part, it was simple interrogation with the simple calculation of the number of queries and responses divided into the total amount of time. There was a question and answer every forty-five seconds, which is about the rate at which a standard multiple choice test of information recall is utilized.

In the course of the next three years, those oral examinations were transformed to probe judgment and problem-solving, and in a subsequent systematic analysis, following training of examiners and the development of standardized material, focusing attention upon this as a particular goal, when the data were now accumulated, it was a vastly different procedure. No longer was it an interrogation, but, really, an opportunity for a candidate to demonstrate his skill at making judgments about specific problems.

Now, each is called an oral examination, but they are very different things. If we want examiners to do certain things, it seems obligatory to be sure that they are doing those things, and if they are not, then, help them to learn how to do them in order to be sure they are done.

DR. WITTEN: Old style oral examinations are no longer justifiable, and I believe that all of the boards will change in time. The ultimate measure of quality of any examination is determination of its reliability. Reliability, in this instance, refers to the degree to which the examination can be relied upon to provide consistent and reproducible results. An examination is considered to be reliable if it can produce consistent scores for individuals or groups of individuals if they were to be tested on repeated occasions. It is this essential reliability characteristic that is so often lacking in essay or oral examinations, which depend too much upon subjective judgments.

On this matter of recertification, we have been asked by several boards how we would propose that they might establish a recertification process. It seems to me, that, as you mentioned, when the certificate of a diplomate of any board has been issued, it has been issued on the basis of being irrevocable, and I think that the boards should and must hold to this. This is my opinion. I am not talking of a legal opinion, but I believe that they are morally bound to that.

But you have two opportunities, it seems to me. One is to establish the recertification criteria for all those who enter the Board certification in the future, all future diplomates after such and such a date. Secondly, to make it possible that those who are currently diplomates to voluntarily be recertified during their time in the service to patients.

In this way, I think that any established board can bring about recertification of the diplomates.

DR. GEORGE MILLER: I must challenge Dr. Witten's abrupt dismissal of the oral examination, because I think he has touched upon only one aspect, that of reliability. The more important, even more critical aspect of assessment procedures is validity. Does it, in fact, assess what you want to know about somebody.

There are a great many things we want to know about practitioners that cannot be tested by written examinations of a very high reliability. Our task is that of increasing the reliability of those instruments that have a higher level of validity.

DR. McGUINNESS: I want to ask Dr. Danforth why the eighteen month wait between the written and the oral. I have a reason for asking that, of course. To the foreign medical graduate that certification means a great deal when he gets back to his own country. In Asia, he can use that in lieu of Royal Society membership to hold certain positions in his faculties and in the government and so on, and because of his limited duration of his stay in this country, many of them can't wait that eighteen months. What is the reason for the eighteen months aside from the fact that it has always been that way?

DR. DANFORTH: Well, it just happens, incidentally, that although this is not a motivating factor, that this foreign medical graduate who is going to take his certificate home and hang it on the wall and use it as entry to practically all of his local inner circles can't do this unless he is going to stay here. In other words, he does not qualify to take the oral examination unless he has been here for a year and one-half after this.

DR. McGUINNESS: Why, why?

DR. DANFORTH: According to the Board regulations.

DR. McGUINNESS: Why does the Board have such a regulation?

DR. DANFORTH: There are several reasons. My understanding of it is that during this period of time he is in practice, and he establishes certain relationships with the people with whom he is working. He indicates his qualifications to practice obstetrics-gynecology and, also, he shows something of his ethical standards.

During this year and one-half, he will have operated on a good many women, quite a sizable number. I think we will be able to know a little bit more about him than we would if we examined him immediately. We will know, whether he is actually limiting his work to OB-Gyn what is his ability as a practitioner.

DR. McGUINNESS: Again, I don't deny that, and this is not the forum to press my point except it gives us a great deal of problem when we on the one hand are anxious to have these people take back their evidence of training, and, secondly, we are anxious to have them leave the country as soon as possible.

DR. DANFORTH: We do issue them a certificate if they are going to leave the country after they have passed the written examination, the first examination.

DR. McGUINNESS: What kind of certificate?

DR. DANFORTH: A certificate that states they have passed a written examination in obstetrics-gynecology that is printed by the American Board of Obstetrics and Gynecology.

DR. McGUINNESS: That isn't going to do the guy a bit of good when he applies for his job in India or Pakistan.

DR. MICHAEL: Actually, perhaps, this is a good idea, this waiting period. It gets to one item that Dr. Elliott was talking about in his presentation, how that man interacts with his community, is he a person, or is he just a technician.

The question I want to ask is one of evaluation. You made the statement in the rules of the Board exams, some men from good programs did lousy, and some from lousy programs did well. It's this old problem, how do we evaluate what is a good and what is a bad program?

I know we have the figures of how many deliveries and how many operations they do, but how effective is evaluation of a program?

DR. MIXTER: Well, it is pretty damn effective, as a matter of fact. The least good programs attract the least apt pupils, and they expire after a time. It becomes evident that they are not any good, and once a program has gotten into that state of affairs, it takes an almighty effort to boost it up.

Now, the Review Committee has got a number of ways of judging this. Basically, they accept what the Program Director says about himself and his program: These are the statistics; these are the rotational schemes; these are library facilities; these are all of the nuts and bolts.

Also, we have a field staff who go about confirming what these people say about themselves. Now, the field staff person may be a pediatrician or obstetrician-gynecologist or an internist. We have all of those, but they evaluate programs in all specialties.

Now, in a tight spot -- and I won't name the city -- but Dr. Danforth undoubtedly recalls when an obstetrician-gynecologist was sent to a city somewhat south and east of us and did a survey of four programs, all of which we sensed were in trouble. Following this the whole city got together, looked at its problems, and reconstituted one good program.

Now, a great deal of the probationary approvals that the committees hand out are based on relatively trivial matters such as a low autopsy rate, something like that. These are, more or less, excuses, but they do force the people in the program to look at themselves.

The thing practically does work.

DR. MICHAEL: You know, Studebaker was a good automobile. People didn't buy it, and it went out of business. I am not defending those that you axed, not enough of them are axed, but I am sure that there are good ones that go out of business because not enough people buy them.

CHAIRMAN HALL: I couldn't resist thinking that there are many very bad programs that are strongly supported by outstanding students.

DR. DANFORTH: A couple of years ago under the aegis of the College, a so-called Council on Resident Education in Obstetrics and Gynecology was formed. This Council is composed of six men from the College and six from specialty societies. It was formed for the purpose of looking into problems of residency education and has defined certain problems that need to be answered. One of the first was the need for some kind of in-training evaluation.

In addition, soon to be set up are consultative committees who will appraise a given program that thinks it is in trouble or knows it is in trouble before the Council drops the bomb.

In other words, these people will go out and will consult and will point up the weak spots and will indicate what they must do in order to improve. In addition, they plan to have a register of available opportunities. It will be kept current for those who wish to inquire about where they can go, and, also, how many places they have got to go. I think the Council on Residency Education, otherwise known as CREON, will perform important functions, not the least of them, I believe and hope, will be this in-training examination that the good Dr. Hubbard has been helping us with, and that will be done under the auspices of the National Board.

DR. GREGORY: Dr. McGuinness raised a point I would like to pursue him on. While Boards originally were contrived to certify to the competence of the practitioners of the various specialties with which they are concerned, they subsequently became concerned with the quality and the characteristics of the training programs that produced the candidates they would certify.

Now, in addition to that, they have been adopted without permission or consultation by a great many other societies. For example, practically every hospital staff society in this country utilized boards as their primary screening committee, for to gain membership in such a hospital staff society, you must (1) be Board eligible or (2) after a certain length of time, Board certified.

Now, in addition to that, it seems that the Royal Colleges of Europe and Asia and similar byways have decided that we shall be their screening committees also. We are acting in lieu of them, and this puts an onus on us, in a sense, that we simply can't put aside. We have the responsibility because we haven't done anything to stop this kind of thing. But a certain amount of chaos might ensue if, for any reason at all, boards were suddenly withdrawn as a part of the certifying bodies in this country.

DR. ANGELIDES: I want to ask Dr. Danforth how many people are refused entry to the oral examination in Obstetrics and Gynecology or any specialty that is represented around this table, because of poor moral and ethical character?

DR. DANFORTH: I couldn't answer that in terms of numbers.

DR. McGUINNESS: We do.

DR. DANFORTH: There are several. Of course, it appears to be easier to be immoral in obstetrics and gynecology than it is in some other specialties, and when these things do come to light, as they do, this will be grounds for not admitting them to the examination.

DR. STEARNS: Does this pertain to practitioners or people in their residency?

DR. ANGELIDES: This is the eighteen months after.

DR. MOORE: Every year our Board turns down several candidates who have completed four or five years of residency, perhaps, in a well-known university program, because the Chief or others there bring out that this man has been immoral and whatnot.

CHAIRMAN HALL: I would like to now call on Alan Kaplan of the Bureau of Health Professions, Education and Manpower Training, Department of Health, Education and Welfare.

DR. ALAN KAPLAN: We are now under the new NIH administration, and are in the process of being reorganized internally.

The Bureau has a deep feeling, as we all do, that as spenders of taxpayers' dollars, we are responsible for these dollars and should account for them in the best way possible. We also recognize the deficiencies in evaluation of continuing education and hope, by sponsoring conferences such as these, that we can bring about improvements.

The Bureau is responsible for increasing the quantity and maintaining and improving the quality of health manpower in these United States as a national program. The quantity, you can measure this in number. This year we had so many physicians, and next year so many, and you can say this is the increase, and you can say we spent X number of dollars, and this is what happened. You got an increase, but there are other things.

Did we spend the dollars in the best way possible? For instance, if we spent six hundred million dollars building six new medical schools and got six hundred new physicians graduating from there, was that a good expenditure for six hundred million dollars, or could we have spent six hundred million dollars by helping the existing medical schools to expand their classes each by six -- or each by twelve -- for the same amount of money or for less money gotten more physicians out? These are some of the problems we are faced with in evaluation.

When it gets to maintaining or improving the quality of medical manpower, health manpower, you know the state. I can't describe it to you because we are all in the same boat. How do we measure the quality? So, we are very, very interested in what comes out of this and the recommendations that you make and the work that you are doing. Hopefully, as time develops and more people get interested in this problem, we can come up with answers.

CHAIRMAN HALL: Dr. Kaplan, is Manpower doing anything about the evaluation shortage other than demanding this in the project?

DR. KAPLAN: Evaluation shortage? What do you mean by "shortage"?

CHAIRMAN HALL: Well, there is one. There is a shortage of manpower. There is a shortage of tools and evaluation of all of this.

DR. ANGELIDES: Is it in the numbers?

DR. KAPLAN: I think we are doing this in examining why there is a shortage. What we mean by a "shortage"? Do we actually have a shortage? First of all, what area are we talking about when we say there is a physician shortage? After all, we know that many times the things the physician does in his office could be done by someone else. There are many things that patients tell physicians, and if they knew how to tell physicians in a better way, they might be able to save physicians' time. There are many various aspects of this shortage problem. It is not one strictly of numbers, and I think we are examining this as a total picture before we start putting in a push.

CHAIRMAN HALL: Has the Bureau, then, addressed itself to definition of physicians? Is it defining the universe of a physician and his task?

DR. KAPLAN: I don't know whether the Bureau has defined it, as such. We have defined it in physicians manpower as those people holding MD and DO degrees. Looking at the broad spectrum we take into account not only practicing physicians, but teachers, administrators and researchers.

DR. GREGORY: Dr. Kaplan, do you have any difficulty differentiating between shortage and maldistribution?

DR. KAPLAN: I don't know really. I don't know whether we have defined "shortage" as yet, and whether we understand the maldistribution problem as a matter of transport, or as a matter of the so-called "health care system." It is still very nebulous and open for discussion. I don't think anybody has any hard answers yet.

DR. MIXTER: Dr. Kaplan, then, you subscribe to the proposition that the product of all of this is not just the doctor, it is health care. This whole concept to me makes more sense than the numbers game.

DR. KAPLAN: The prime aim of the Bureau is to improve patient care. This is the prime aim. We are not in existence just to put out more physicians, but to improve patient care. If patient care can be improved by increasing the number of doctors, that is one way of doing it.

DR. FREYMANN: Alan, I hope you would expand that. Patient means one who suffers. Don't you think it would be better to have your goal as health care and get a little preventive personnel in there?

DR. KAPLAN: I think you take "patient" in its broadest sense as including preventive care.

DR. FREYMANN: That is a typically negative doctor's point of view towards health as being the absence of disease. Don't fall into it.

DR. KAPLAN: No, I was just going to say if we had good preventive care, there might not be the mal-distribution problem or shortage problems we talk about. If we can encourage patients to get care earlier and encourage physicians to do these simple things for preventive care, we might alleviate a lot of the problems.

DR. FREYMANN: If you eliminate atmospheric pollution and cigarettes, we can eliminate one of the American Boards -- Thoracic Surgery.

DR. STEARNS: What do you call a person who comes into your office for a vaccination -- a health care candidate or patient?

DR. FREYMANN: I was thinking in more global terms than that. I recall George James' aphorism -- the laborer with a seventh grade education who is putting fluoride into the city water supply is doing more than the entire American Dental Association for the nation's health. If we think of health in terms of a numbers game -- so many people to do certain tasks -- we confine this to a negative point of view. Have you ever seen a medical student write at the end of a history, "The patient is healthy."? He writes, "No significant disease."

If we think in a broader term of health as a positive thing, then, we expand our concept of health personnel.

DR. KAPLAN: But whose fault is it the patient only comes to them with no negative disease? Shouldn't we educate the patient to come to us when they are well?

CHAIRMAN HALL: What do we do with them? We negate the educational practice. They come in, and we say, "Why are you taking our time?"

DR. KAPLAN: That is the part of the educational process we have to go through.

CHAIRMAN HALL: We can't just address this to patients. The reason I asked you the question about definition of the universe of the physician is that if we accept this medical degree phenomenon then we continue in a self-perpetuating status quo.

We must get the physician to accept the fact that he has a responsibility for health care judgments that should have a high degree of probability of success. I think the physician should be the leader who encourages this plan to throw the fluoride in the water. That is his responsibility as surely as it is his responsibility to choose the appropriate agent to combat pneumococcal pneumonia.

DR. KAPLAN: This is essentially the philosophy behind RMP. Ceci's continuing education plan is not devoted strictly to the continuing education of physicians, but the health profession as a team. In the Bureau of Health Manpower, we are looking at it from a different point of view. We are focusing on providing the methodology of continuing education, not putting on programs as such. It is a total of continuing education that they are looking at -- not only the physician, but the dentist and the allied health people all as one team.

CHAIRMAN HALL: This function is dependent on role identification, and the doctor's role identification is fixed in medical school, and, maybe, during his internship.

MISS CONRATH: I think there is a philosophical definition we are talking about here as well as the bureaucratic definition. I think this is what Alan is responding to. There may be agreement philosophically, but not in terms of organization.

DR. HUSTED: There is also the problem of judicial delegation. The physician, first of all, must be intimately knowledgeable of the many and varied allied health people who are at his disposal or could be at his disposal if he made more use of them. Then he must judicially delegate patient care and preventive medicine to these individuals, with the probabilities that his time for more physician-oriented activities would be increased.

DR. HUBBARD: Dr. Kaplan, would you care to offer any prediction as to what you see concerning the formal licensure of other members of the health team? I am thinking of the assistant physician, assistant pediatrician and these additional categories of individuals who are now in training.

DR. KAPLAN: I don't think I am really qualified to comment, as such.

DR. HUBBARD: You don't see any nudging from the federal government?

DR. KAPLAN: There probably is something going on. I don't know of it personally. After all, the federal government is made up of people who are interested in doing certain things, and each person has an individual opinion. I think sometimes their personal opinions get involved in what the federal government is doing.

CHAIRMAN HALL: Dr. Tucker, would you care to comment on that?

DR. NORMAN TUCKER: As you know, we are interested in new ideas for contracts which relate to continuing education, ~~and I~~ would like to pose that question to him for a few moments of discussion. Dr. Gregory's in-training examination seems to be quite successful, and it also is being employed by neurosurgery. Could this be a mechanism for continuing education or, at least, for self-evaluation of the practicing orthopaedic surgeon? Could you, say, on a staggered basis a year after you gave an exam send copies of this exam to your practicing orthopaedic surgeon as a means for him to evaluate his present knowledge? If he found he was weak in a point or two, he could use this as a continuing education mechanism.

DR. GREGORY: Yes, the noting that the in-training examination might be utilized as a learning instrument at the same time is another lesson which we learned from Dr. Miller on this basis for the last three years. We leave the examination booklet with the candidate after the examination is taken, and he and his teachers can then go over it all at will. Mind you, the question booklet remained unkeyed, and no one knew the right answer, but that doesn't matter because the question is mulled over and dealt with by the students and the teacher collectively.

Well, this surrenders security at once so far as the questions are concerned.

Beginning two years ago, this examination was offered to all members of the Academy which sponsored this. The first year some four hundred people wrote in and requested the examination. Incidentally, they were charged a fee for this. Of that number, I think a little over two hundred completed the examination and returned it. The results were handled anonymously precisely as they were for the candidates themselves.

This year again it was offered. Some eight hundred took the offer, and it is my understanding that something over four hundred of those have been returned.

That examination may not be the most appropriate one because the kinds of things are to some extent more esoteric than the average practitioner finds himself comfortable with. I think this may account for the relatively low rate of return of examinations, but the willingness of the average practicing orthopaedist is expressed to the extent that they have already availed themselves of this opportunity.

DR. WITTEN: Jack, I would like to comment on this willingness of the practicing physician to participate in the self-evaluation examination. We learned from our internist friend this morning, and we heard from orthopaedic surgery, and you heard Dr. Stearns tell about the experience of the voluntary examination by those who took the exam that was put on by the Ohio and Connecticut Academies of General Practice, two state chapters. I might add they got into this business because the American Academy of General Practice would not step into it. Unfortunately, we were tied up with our certification efforts, and we thought this might dilute them somewhat.

Nevertheless, the first time around this examination was given to thirteen hundred individuals, as I remember. They paid thirty dollars each for the privilege to take the examination. At that end of this time, some eight hundred had an opportunity to critique the exam, the critique brought about some changes in the second one.

The second examination was given, and this time twenty-three hundred general practitioners voluntarily took the examination and paid the thirty dollars.

DR. FREYMANN: Was this just in two states?

DR. WITTEN: Two states are sponsoring it, but it is put on nationwide throughout the country, and I think this is very significant. The exam is not a one-shot deal. It was in nine sections in which they could sit down and evaluate themselves and go to resource books and so forth.

This examination came out in a series of one every two weeks or one per month or one every three weeks, and you had to have your results back in by a deadline. This change was very effective in our case, and I would just like to pay tribute to them for putting on this examination.

DR. STEARNS: This exam has many interesting features. It is interesting that the Academies in Ohio and Connecticut came to Boston to the Postgraduate Medical Institute to ask them to make the examination. It is also true that if there are problems in the examination we can make a change because it is given serially over a period of time. This year we are very responsive to suggestions from the field and are adding new kinds of questions. Also, there is opportunity to give out bonus kinds of information things. You keep in contact with those who are taking the test, so that it is an interesting involvement procedure.

CHAIRMAN HALL: Maybe this is what Dr. Miller tells us that they are addressing themselves to -- what the student wants to know in the examination, and some of the student needs.

DR. STEARNS: I would point out, again, that it isn't what the students think they need, because we set that ground rule from the very beginning. We would ask them what they thought they needed, and what they wanted, but we insisted that this examination be made by specialists in their own fields of practice -- pediatrists make the pediatrics examination, OB people make the OB exam. So, it isn't the question of filling what are felt needs.

CHAIRMAN HALL: We have thrown out the challenge this morning that it would be important for each of us to write down the commonalities of the various programs of evaluation that were discussed here. I would like to start around the table and see what notes you have scribbled down on what things seemed to stick in your minds as important commonalities in evaluation relating to graduate education, and we have to very honestly add continuing education.

Our program was very hotly debated almost a year ago as we set up the format for this coordinating conference as to whether to address it to continuing or graduate education. We finally chose graduate education. I think that the group here has moved from graduate to continuing education. But I don't think it inappropriate that we have addressed ourselves to both problems a little.

Well, I would like to call on Dr. Freymann to lead off.

DR. FREYMANN: I won't throw you if I say I would like to start out by discussing nursing education. I think most of us would agree that in nursing education we have seen what happens when a group -- largely academicians -- assume the right to determine the duration and general content of educational programs by establishing accreditation requirements and establishing a need to pass national tests. This was done with little if any reference to the function that the nurses are going to serve.

Aims, you have given your example of twenty-four nurses taking care of you in your days in the hospital. I think nursing has fallen into a trap where education has very little relationship to function. Now, I purposely started talking about nursing because we would all be delighted to stand around and kick the carcass of nursing education, but I think we are guilty of just exactly the same thing. So let's call a spade a spade here.

Dr. Brem conceded that the Advisory Board on Medical Specialties determines which boards are going to be boards without any knowledge or information about whether the boards are needed or whether the people who want to have the boards are needed. All of the existing boards, have assumed the right to determine the content of educational programs. Most of them still determine the duration of the educational programs. Here it is perfectly obvious that orthopaedics and neurosurgery are trying to break out of this bind. I don't mean to be critical across the board. The College of Physicians has assumed the right to determine what should be in the self-assessment program. All of these groups are working without real knowledge as to what is needed at the opposite end, what the physician should really be doing.

Someone talked about arrogance this morning, and I would submit that, perhaps, it is just a little bit arrogant for anyone in the certifying boards to say that he knows what the doctor ought to know, without some data to back him up?

I am sorry to say this in Dr. Butt's absence, because I would like to say it with him present so he could defend himself, but I took the College of Physicians' self-assessment test. It was lots of fun. It was an exercise in the interesting patient syndrome. Seven hundred fascinating questions, but I don't think it really had very much relationship to the application of an internist to the practice of medicine.

It brings to mind a letter written by Professor Ferrie at Harvard, an MD and a Professor of Biochemistry. There was a letter in the New England Journal of Medicine this year in which he pointed out there are many people with very few common diseases, and there are few people who have very many rare diseases. This, I think, is what the ACP test was aimed at.

I would like to say that we are witnessing here happily the fall of one orthodoxy. Thanks to the leadership of orthopaedics and neurosurgery, we are turning away from the orthodoxy of a time requirement, and the orthodoxy of a blind progression -- without any evaluation -- to create a specialist.

I would like to caution the gentlemen who are the iconoclasts -- I think that is what you said, Dr. Gregory -- to realize what a heresy this is, and I don't think any of us really realize how far this may go. Because if you can say that you can create an orthopaedist in the length of time it takes him to acquire certain knowledge and skills, and not in a rigid length of time, doesn't this really extend to undergraduate medical education, too? Aren't we really shaking the roots of the medical schools?

Just bear that in mind, that if we are seeing the disappearance of one orthodoxy, I think we have to guard against another one which is just as bad if not worse. That is the one I was leading off with, and that is those with the self-assumed right, the self-assumed power, to set accreditation, to say that they know the needs of society, the demands of society, without actually measuring them.

DR. EVANS: Jeff started off talking about the nursing education. None of us as physicians any longer has any right to talk about that. We abdicated the responsibility for it a long time ago. I would like to carry his analogy one step further. Nursing rather proudly proclaims as a hallmark of all of its programs the evaluation system built into them. In fact, evaluation for those of you who have tried to work with interline programs is a religion rather than a process. Unfortunately, they have made, I think, the ultimate mistake of addressing evaluation to the efficiency of the educational system and not to what needs to be learned in this system. I would hope that as we go forward in evaluation and graduate continuing education, we don't ourselves fall into this trap, because content and need must be, I think, the absolute criteria against which anything else is measured, and you have to begin to measure these first.

Secondly, I think the very great progression which Jeff has mentioned from graduate to continuing education shows the really inseparable relationship. Continuing education is really a basis for graduate education in an institutional setting, and I think it shows even much more clearly the one thing which we have skirted around, but haven't really hit hard, and that is the impossibility of separating continuing education from evaluation of patient care in the setting where it is being given by those who are members of the continuing education program.

DR. MICHAEL: One theme that seems to run through a lot of the presentations is that when evaluation is considered in a program or residency or whatnot, it is usually crisis-oriented.

We say that the program in orthopaedic surgery was not crisis-oriented. Well, indeed, it was.

Dr. Gregory pointed out that it was engendered by the fact that too many people were flunking the Board. There was a crisis. Why? We look at residency programs. I think it is safe to say that with rare exceptions, the self-evaluation takes place only if a crisis comes to the institution or accreditation is threatened. I think all this points out is we are all for evaluation. It is a good thing. It is here to stay, but it must be built into objectives in any type of program that is being designed or those that we have now. We can get away from some of the frantic crisis evaluation I think we indulge in.

Let me come back to Jeff's statement about the example, the rare disease syndrome. I have talked with several internists about this, and ones that I would call more intelligent internists. They like this, and I asked them this question, "When you have a patient with pneumonia, it really doesn't make a bit of difference if you know which way the DMA molecule coils, whether it spirals in the right or to the left or takes loops or whatnot. The patient has pneumonia. You give them penicillin. If they don't get well, you begin to scratch your head."

I think a lot of people -- and let's be arrogant again -- internists, in particular, are interested in some of the esoteric things. These are the fun things of learning.

DR. FREYMANN: I said it was fun. I questioned the value. Is it relevant?

DR. MICHAEL: Yes, it is valuable because it keeps your computer oiled.

DR. GREGORY: I think what I have heard here is some good news and some bad news. I have heard that certain of us are involved in efforts to break through, and that some of these efforts hold promise. I have also heard that there are areas that need to be identified, measured, that don't have any prospect of immediate measurement or accurate identification.

DR. WINSTON MILLER: I have been stimulated last night and today by what I think is an exciting threshold of progress in medicine. Certainly, it is highly encouraging to see we are ready to face meaningful evaluation methods of what we are, what we know, how we judge things and what we do with what we know. The humility of this is worth a great deal.

I also took the American College of Physicians test and share many of Jeff's views, but one of the chief values of the test was the humility it produced in most of the internists that took it. Even the sub-specialists -- limiting themselves to one of the nine sub-specialty areas -- seldom were able to make 100 on the test.

I think there is another highly significant thing that we have touched on today, and that is the shift of subject matter between the area of education and another. Basic science -- some of it -- is being shifted into the more advanced state from the pre-clinical years into the actual graduate educational program. This is going to produce an entirely different kind of a load on the graduate program, and we are beginning to see an increasing shift of clinical subject material from graduate programs into postgraduate or continuing education responsibility.

The Society of Rheumatology has recently come out with this. It simply can't be taught in medical school. It has to be taught in either graduate or continuing education programs. Psychiatry has virtually said the same thing. Narcology has said the same thing. I am sure that when we know about what we have to do we will find more and more of these kinds of things. The only way the services can be delivered to the public is to develop a greater bridge between the academic institution and the peripheral practice. I think we also see a fantastic change in concept with the development of the American Board of Family Practice. We are facing the issue of having all chiefs and no Indians, and we have previously relegated all efforts of insufficient services to that nebulous group of Indians that was the last one present. Now that we are not going to have general practitioners to deliver the babies that the obstetricians don't want to deliver, we are going to have to look at whether we want obstetricians to deliver babies, or midwives. So, I think this was a stimulating conference and it is a shame that we can't extend this more to the practicing profession.

DR. KAPLAN: Well, it seems to me that we are going through a challenging time. Everybody is challenging everything, whether it be the riots in the streets or somewhere else. The thing that I find very gratifying is that while we are challenging, we are not just tearing down. We are not challenging for the sake of challenge, but we are doing it with the idea that maybe we can make it better. I think this evaluation conference is a very important part of this, and I am glad to see it is going on.

DR. WITTEN: I, too, found this conference quite stimulating. I do hope that the product of this meeting may be distributed widely. I would have wished that each member of the Council on Medical Education of the American Medical Association might have participated. I wouldn't have been surprised if they might have learned a little bit.

DR. BROWN: I guess I am, frankly, a little surprised at all of the activity that I have heard about in the area of evaluation, but I am a little concerned. I think about Carl White's statement that one should not confuse activity with action and both with progress. I am not sure I know how much progress has been made in the area of evaluation because it seems to me what we are usually talking about is what I might call "second and third level" evaluation. The second level is evaluation and knowledge that someone has based on administration of some special instrument. The third level evaluation is even more often done, the evaluation of programs and not of the learner. The thing I think we have really got to get to is evaluation of practice and to see if there is any correlation between what we are usually evaluating now at the second and third levels and what physicians really do in their management of patients.

I think this is where we need to be, and, finally, with respect to what has happened today or the effect of the evaluation of what has happened today, I think we might all ask ourselves will we do any one thing different as a result of having been here yesterday and today when we go back to whatever it is we go back to. The answer to that question will let us know whether or not this conference has been successful.

DR. GEORGE MILLER: The title of this meeting was Consideration of Educational Programs Evaluation. I have been pondering the focal word which was "evaluation," but the key word was "education." Presumably it is about education that we are talking. I think of Paul Sanazaro's chart on education which has an input student body that comes into a black box where something happens, and, then, there is an output product. Our discussion is focused upon the input, how we identify those students who will be best. This kind of evaluation implies that if only they had what we wanted them to take away, we wouldn't have to do very much in the black box.

Looking at the black box itself, it has two components, one of which is program organization, the setting in which learning can occur. To this we have given a good deal of attention. How do you evaluate programs? We have talked, I think often rather loosely about good and poor programs without establishing the criteria upon which these judgments are based. But we have looked very little at the educational process that is supposed to take place within that setting. To what extent are the principles of adult learning incorporated in this program? Systematic observational analysis of the educational process is something to which we give almost no attention either at the undergraduate, the graduate or the continuing education level. Here again, I think we are inclined to use words rather loosely. We have focused attention primarily upon the product, the output, what the learner has at the conclusion of whatever the learning experience may be. Yet, there are those who have criticized this because it did not seem related to the real thing, the real life patient care.

I think I would call attention to the fact that the product that is the objective of the education may be at three levels, immediate, intermediate and ultimate. When we are talking about patient care, we are talking about the ultimate product which is the critical and essential, but, also, the most difficult thing to get at.

It might be profitable for us to direct some more of our attention to the purpose of a four-week experience on internal medicine in a rotating internship. To what extent this purpose is achieved? To what extent does a continuing education program designed to increase a specific skill, increase that skill?

The intermediate outcome would be the assessment of whether somebody takes it beyond that stage back into the setting in which he might use it. The ultimate, of course, is whether it does any good, but each of these is worthy of thoughtful attention.

Finally, it seems to me that we have given little attention in the course of this discussion to more than talk about evaluation. Perhaps the next time, instead of exchanging information, it might be well to devote an even longer period to gaining some skill in the tools, the methods, the concepts, the application of evaluation so that we go beyond the level of intellectual assent to practice the better procedures of evaluation in all of the settings to which we devote our attention.

DR. HUBBARD: I suspect that it is probably true that each of us came into the conference with his own, probably, pretty well-defined definition of what he meant by "evaluation," evaluation of the individual or evaluation of the program, and to what extent we will go away from this conference with different ideas as to evaluation, I would not presume to predict at this point. I think that I have seen some confusion, confusion of the objectives of the program with regard to evaluation or with regard to education and the learning process.

Perhaps my view of evaluation is too sharply defined, too limited. I think in terms of the precise measurement of individuals which may, in turn, reflect the effectiveness of the learning experience or the training program that they have experienced. This came clearly into focus when Dr. Hugh Butt and his committee first came to the National Board. What they said they wanted at that time was an evaluation of the effectiveness of the postgraduate training programs of the College, and to this end, they would set up an examination of the membership of the College on a voluntary basis which would reflect the effectiveness of the training program. As you have heard, they were advised not to go down the line of an examination, but, rather, a self-assessment program, from which no data would be derived. The objective changed. The same thing now is true of the other associations that are coming to us for similar activity -- even in the very word "self-assessment," itself.

I couldn't help but notice that this was what you referred to a moment ago, Carroll. I think this is a misnomer. Are we really concerned with the test? If so, we have got to recognize the fact that you have to sacrifice some values of the training program if what you want is an examination that is going to yield hard data. This, frankly, is what we like to see, an examination that can serve for evaluation of the individual or program or evaluation of the product or evaluation of the process. Then, I think, you have got to talk in terms of an examination under supervised control, and this is something very different from a self-learning kind of procedure.

Just for a moment, I couldn't help being hooked by the bait, that Dr. Freymann tossed out a moment ago when he talked of the arrogance of the certifying boards, and asking if . . .

DR. FREYMANN: I put a question mark after that.

DR. HUBBARD: And asking the question whether certifying boards have the wisdom to know what a doctor should know. I appreciate the question. I have heard it before, but I would respond with a question. Who better should make this assessment? With respect to our own examinations of the National Board, we rely upon those who are expert in the field of surgery, pediatrics, biochemistry, pathology, the various subjects in which we examine and rely upon them to determine what students should know. At the specialty board level, again, I asked the question, how better can we set up a system to determine what pediatricians should know than to ask those who are pediatricians to set the examination procedure.

DR. FREYMANN: Look what the pediatricians themselves have done in ten years as they have looked to see what they have done. The second thing is who knows best if my definition of a core curriculum is everything I teach and half of what you teach.

DR. BROWN: One source of objectives for an educational program is the experts in a particular area. I think there are two others that are extremely important. One is the learners themselves, and the other is society and its needs and wants. So, I think that, maybe, specialty boards are completely irrelevant to both of those sources of educational objectives. Maybe, they are not always best.

CHAIRMAN HALL: I think I would like to introduce one other thing besides the commonality now. I would like to see some recommendations, and I think Dr. Hubbard has given us this charge a little bit in his comment, that we should come up with some recommendations.

DR. HUBBARD: I opened one last evening. It wasn't received with much enthusiasm, but since you ask, I will state it again and that is something should be done to try to determine the competence of the foreign physicians who are in hospitals throughout the United States today. We know a lot about competence of graduates of American medical schools. We know very little about the competence of graduates of foreign medical schools, with all credit to the ECFMG, and I have the feeling that if an organization such as this does not do something about it, somebody else is going to clamor for an answer, and we may be pressed into a situation that we are not too enthusiastic about.

DR. HEBERT: My most poignant reaction to last night and today is one of being really overwhelmed by the amount of people, agencies, boards that are involved in evaluation.

Now, please don't misunderstand me. I am not against evaluation, but my reaction was do so many agencies, boards and people really need to be involved in it, and could it not be more concentrated. It reminds me of a thought I have often had that if a well-accredited, competent medical school graduates a physician, should not that diploma be sufficient to practice? If a well-accredited and inspected training program intimately knows its own graduates, should not that training program be able to issue his specialty certificate? My recommendations are that we would try to consolidate our evaluative procedure. How, I don't know.

DR. STEARNS: I was a little bit heartened last night to hear somebody remark that doctors, in fact, had been looking at what they had done for many, many years. I think it is easy to forget that many, if not most, physicians really try to be self-critical, that we were brought up on the case discussion kind of critical review of what we did, that we have been confronted with a lot of real kinds of almost harassment of how bad we are, and that kept coming out today. So, it was nice to hear somebody say that, maybe, we weren't all bad as doctors. I don't really think we are.

It is interesting, Fred, that there are a lot of people trying to do something in this field of evaluation, and I don't think there are too many. I think the job is terribly, terribly difficult, and I think one of the reasons it is terribly, terribly difficult is that we really are not all trying to do the same things, and we really don't have the tools that everyone will accept as applicable to every job. So we have to be prepared for a hard kind of undertaking which does need support. I would second George Miller's recommendation that, maybe, some programs and action, again, because we have tried it before, is what is needed at the present time.

I wonder if it will be more productive, however. Namely, I am not sure that if we sat down and were doing evaluation things, it would be more productive, because if there is the magic of the tool here and the technique that can get across to us, it must have come by some other than the written word or the stated word.

So, you know, maybe, a participated phenomena, and I would recommend that we try it.

DR. McGUINNESS: I would imagine the future conferences would be productive in proportion to advancement of the art of evaluation, and if the art does not progress, then, the conferences aren't going to be much more productive.

To go back briefly to last night, frankly, I had a little difficulty during Dr. Elling's presentation. Someone talked about those of us who got out of medical school twenty or thirty years ago. I got out thirty-eight years ago. We were talking a little bit about the problem of the whole patient and his environment. I think we got that, a great deal of it, in medical school, because of the fact that a substantial portion of our instruction came from people who were in the practice of medicine. That was their primary interest, as opposed to today's full time faculties, the majority of whom are not in medical practice, and who are not too concerned with patients other than the diseases they have and their research problems. That, perhaps, is stating it a bit unfairly, but I am doing this to make a point. This is obviously something that has come about for two reasons: (1) the explosion in science, and (2) the disproportionate research, disproportionate in the amount of funds available for research and teaching. If the government just produced funds for teaching in proportion to funds that have been made available for research, I think the picture would have been somewhat different. I think now we are getting more funds for teaching, and, perhaps, we can get more clinical faculty back in the schools. We will only be able to do that to the extent that there are funds available to support clinical faculties as opposed to research faculties.

This may help balance the situation, but I think we now are going to need the new kind of faculty member like Dr. Elling.

I can only say that -- as I said at the opening -- what we are beginning to develop is expertise, Dr. Hubbard and his associate and Dr. Miller -- we will progress to the extent that they and others like them probe deeper into the techniques of evaluation.

MR. NORMAN TUCKER: As a non-medical observer, I think there is one commonality that comes through loud and clear to me, that somewhere in the ominous background, the greatest stimulous of all toward the evaluation of graduate and, more specifically, postgraduate medical education is this business of re-examination and/or ultimately recertification.

DR. ANGELIDES: Certain things were discussed throughout this Conference which are difficult of accomplishment. At least, they have been stated, although they may not have been accepted. I think -- if you want to call this a recommendation -- that education in the medical setting, at least, should be related to patient care, and that education is a continuum that must be evaluated in its totality. Currently the best we can do is study it in its traditional integral parts, and try to figure out how the interrelationships can take place for the future.

I think, also, another thing emerges -- that we continue to study, as Dr. Elling proposes, the universe. This is way off. Hopefully, we can establish guidelines to help us in our day-by-day deliberations in trying to cause change and affect not only the traditional parts (graduate, continuing and undergraduate education), but even sub-sets within each of these components.

I think there is keen appreciation that there is need for skills outside of the traditional medical ones. I think that it is refreshing to know that people like Drs. Rosinski and Elling have such a grasp of our problems. There is need for further experimentation since we know little about controls and the scientific approaches in these areas.

The final thing we should consider as a recommendation is the attempt, wherever possible, to try to bring the component parts and stimulate interest between the disciplines to elucidate what is common and what is specific. This is the role of the American Board of Medical Specialties. If this approach leads to a Commission on Medical Education, so be it. Regardless of present developments some mechanism must be organized so that there is free interchange and interplay to evolve a more integrated system.

DR. HUSTED: It seems to me there are several elements of commonality that have come out that we ought to recognize. One of these is that evaluation process does have a function to serve within the educational sequence, and, also, that this has to be carried on with some functional frame of reference.

Also, a second component is that of restraint. As we engage in evaluation process, not only must we consider the restraints that are imposed upon us by those who are being evaluated by the system, by structure, but, also, we must impose some restraints on ourselves and as we recognize the results of evaluation, indeed, impose other restraints.

The third component would be one of utilization, and I would like to look at this in two frames of reference. One is the utilization of the evaluation product just to evaluate, and, then, not to do anything with the ultimate results. Even if they aren't particularly right, or even if they aren't completely valid, we still should do something with it.

The second aspect of utilization has to do with taking a look around your community for resource people who can be of assistance to you, and, indeed, who may be interested, and whose interests might be stimulated simply by contact. Take a look at the people in the schools of education, sociology, and testing and measurement fields. They may well be interested in working with you on specific problems of evaluation.

Obviously, a fourth item in evaluation process that has some commonality is the student and where he fits into the picture not only in terms of behavior objectives, but in terms of his own needs, wants and desires, and where he perceives himself as going.

The element of time is critical. I will refer particularly to the physician in the academic setting. You just don't have time to do all of the things that you expected to do. Yet, here for two days or a day and one-half, we have been talking about another kind of thing that ought to take up this time.

You have to look at priorities, what will evaluation do for you, and when it has done this in terms of perception, is it sufficiently valuable and where does it rate in your priority scale. Are there other things that you might well have spent your time on.

That may sound a little heretical, but I still think it is something you have to take a look at -- the relevance of the evaluation process.

We talked about tools, and I would like to talk about tailoring. You can't lift -- I don't care how good a tool that George might develop, or I might develop, or might be developed by one board or another board -- you just can't lift that tool and use it without doing some tailoring of that media or of that tool to fit your particular needs and peculiar situation.

I also think that as you look at your evaluation process, you ought to be more innovative, or we ought to be more innovative. There are some electronic media, technology, TV and audio-visual terms we can use for analysis of whatever it is that we do in the evaluation process. I don't want you to forfeit objectives as commonality that runs through the whole of the evaluation process. Lastly, I would like you to remember, also, that there are the needs of the students, the needs of society and the needs of the academic process.

I would caution you against frustration. It is very easy to become frustrated by the lack of progress we make in the evaluation sequence, and it is probably one of the most damaging attitudes that develop because of the state of the art or because we are impatient to get results.

The recommendation I would like to see is more meetings like this. I would like to add to George Miller's comments my own educational philosophy, which says you don't learn a damn thing until you are involved. I would like to see a conference where we get involved on a problem-solving sequence. I would like to work with some of the problems of the boards that have been mentioned here, not as an individual, but in a group and work through a whole evaluation sequence from the objectives criteria and measuring devices and implementation.

You do it three times, and the fourth and fifth and sixth times become easier because structure of the process of evaluation, the sequence, becomes more workable.

I would like to see an intensive workshop. I mean a workshop where we take our jackets off and get right down to the nitty-gritty of doing and get involved.

DR. PERKINS: In evaluating our techniques as teachers, we all can be reassured as to how much data and identification and feeling can be imparted within a ten-minute period.

DR. MIXTER: Well, it has got to be that there is one optimist in the crowd. I think that I have learned something about evaluation, and that is that at whatever level it occurs, there are certain threads that run through it, and there are two kinds of evaluation. One is the evaluation of the product that comes out of the black box, and the other is, as Paul Sanazaro phrases it, "the black box itself."

As far as the product is concerned, it is apparent that one must evaluate the amount of language that has been acquired, the amount of knowledge that has been acquired, and the amount of wisdom and dexterity that have been acquired, the ability to cope with the specific thing, and, finally, the ethos of the product.

Now, this last one is the one we haven't got a handle on, and I think that is where our big hangup is, and it has been pointed out at the meeting, and I still think it is there.

As far as the "black box" is concerned, I think there are three major components. There are the nuts and bolts, which are easy. There is the organization, which is fairly easy, and there is the personnel factor of the people who do the teaching. I think, there again, we haven't got the tools, and I think once one can see the problem in an orderly fashion, we can devise tools whereby these things can be evaluated, and I think we ought to keep on doing the things that we are doing and try to supplement them in the areas we know we are weak.

I think this kind of a meeting is the place where thought is stimulated, and we go home and think about what Jeff said or what anybody else said, and, maybe, one of us will have a flash of insight.

DR. DANFORTH: As the discussion unfolded, it seemed to me that evaluation was surely not an end in itself, but, rather, a means to some kind of end.

I think our discussions here helped to clarify not only the evaluation process, but what kind of an end we are, perhaps, shooting for.

I think, also, that the mere fact that we have spent this considerable amount of time and thought on evaluation in itself suggests that, perhaps, we are a little insecure. I think this is to the good, the insecurity, and questions that have been raised about are we doing this right, can we do it better, how can we appraise what we are up to, I think, probably, is the first step to improving.

The question, then, arises, what are we really trying to improve, and, quite obviously, the ultimate goal has been voiced quite clearly this afternoon. This is delivering effective health care. This is what we are all shooting for. I think all of these evaluation processes that we labor through are designed to this end.

I think it also is of great importance -- it surely is to me personally -- to have been able to hear the discussions by the people in so many different areas. There are no two of us, probably, whose backgrounds or daily work are similar. Consequently, we are getting many viewpoints. I think it has been very important in an effort to define these problems and to deal with them.

As far as recommendations are concerned, I have none except that your suggestion, Jack, about having regional meetings. I think the more discussions of this kind there can be, exchange of views by knowledgeable people, the faster we will arrive at the place we want to get.

DR. HOWARD: I think everyone here has tried to be practical. They have tried to adhere to the good principles which I learned in San Antonio or "the Chicago Loop" where objectives, method evaluation, and evaluation give rise to more need for more objectives. Now everyone here said that we should involve the students or the pupils. I go along with that, and I think we should involve the recipients of the health care somewhat more strongly than we have and listen to their voice. I think the biggest thing we can do in the future, as a recommendation, would be to have workshops, perhaps simultaneous workshops, at the various levels of evaluation that Dr. Miller has mentioned.

MISS CONRATH: I think it is appropriate that Regional Medical Programs may be the anchorman here. I would like to offer the suggestion and recommendation that you consider Regional Medical Programs as a mechanism for going the next step in the planning and carrying out of workshops along the lines of the suggestions that have been made here for increasing experience and skills and evaluation as well as going farther in terms of learning how we can better coordinate evaluation procedures.

I would like to make this recommendation, based on the observation which has been made many different ways around the table, that probably the single biggest obstacle to the achievement of the potential of graduate and continuing education is that we have been hamstrung by the concepts and methods of traditional education of children, and that our language reflects this, our use of terms, how many times the word "courses," "examinations," etc., have been used.

Until we learn how to become student-oriented and problem-oriented and learn to talk in terms of experiences and learn to really get involved much more in not who does the diagnosis of the educational problem or who prescribes the treatment, but rather who participates in it, in recognizing that this is now a collaborative effort, then, I think, we will begin to move much faster toward helping adults achieve the full potential of what the educational process has to offer.

CHAIRMAN HALL: I think it is not fair to ask you to define your commonalities without making your own commitments. It seems to me it was first expressed by Elling, that there was foment today, the kind of foment that should create the change that we need to address ourselves to.

The change should be forerun by the definition of objectives that are pragmatic. These objectives must relate to behavior changes, of understandable definitions, be real and have the capacity for commitment. They must be achievable and measurable.

We discussed some of the ways and means and involvement of people in the measuring processes. We discussed the fact that these measuring processes and tools have to be tailored to the individual needs of each situation. We have mentioned the fact that we have to define what universe we are going to work in before we can set up and choose the appropriate tools and obtain valid objectives.

We heard how some people have effectively accepted this challenge of defining their objectives and of using available tools, tailoring them to their specific needs, and I think in some respect tailoring them to the needs of the population. I felt a very strong trend in this conference through that as we did define our objectives, they were too often our objectives and not necessarily the people's objectives, that we were testing our needs rather than necessarily the people's needs or the learner's needs. But I think that some people have addressed themselves to defining what the needs are and what the appropriate testing agents are and using these to relate back to the process.

I think we also heard how just the development of these evaluation tools will permit and encourage a change in the attitude and behavior. This was particularly Dr. King's comment, I think, that he related how they had changed the behavior of the neurosurgeons as they went about addressing themselves to this problem of evaluation.

We heard about the need to gain confidence in the body to be evaluated, and steps and ways of doing this, and I think this is very valid, and one of the things that we have to address ourselves to.

We heard about the bodies that do assume responsibility for accreditation and evaluation programs and of people. We did not hear very much about these bodies assuming evaluation of process or making their evaluative materials available back to adjustment of the process.

We heard about what happens when a group is put under pressure. They either fold or react as a dynamic new program. They grasp the tools and define their position more effectively.

We talked about the need for more relation to society and effective ways and the potentiality of the evaluation process and the endorsement process that goes on after an evaluation, of discrediting other means or mechanisms, and recognize that this was fraught with danger.

We discussed the fact that evaluation should be a continuum like education. It is very important in our evaluation process to start early because sometimes we may have entered into our process a product that cannot receive and react appropriately to the process.

We talked about the need for more resources in evaluation, both in people and in tools and what is being done by the federal agencies.

We also talked about the responsibility of the agent of the people being the federal government to be sure that all systems and subsystems of social institutions should provide proof of their legitimacy and their effectiveness in order to survive.

We come up with recommendations, as I saw them:

(1) To relate this more to the demand or needs of the people and the learners, for improved tools, for more dissemination of the kind of information that we had here today to our colleagues. We came up with the demand for action, for people to take back what we have gained here today to our substrait and see if we can truly be the enzyme that activates this substrait to be more effective.

I think this is going to take commitment and involvement, and I would like to end with a little story that Dave tells so often about a Kamakazi pilot who flew twenty missions because he had commitment, but just couldn't get involved.

I think you have got to get involved.